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PART A
IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

IONOSPHERIC DATA

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IONOSPHERIC DATA

The CRPL-F series bulletins are issued as part of the responsibility of the Central Radio Propagation Laboratory for the exchange and dissemination of ionospheric and related geophysical data. While originally a by-product of the collection of data by the CRPL for use in radio propagation studies, the CRPL-F series bulletins, Part A, "Ionospheric Data," and Part B, "Solar-Geophysical Data," have provided useful service by collecting and making available a wide variety of data in convenient form for use in research, not only on radio propagation and the ionosphere, but also on a wide variety of geophysical problems. Beginning with this issue CRPL-F 211, Part A, "Ionospheric Data," a number of changes have been made in the tables of ionospheric data which, by providing more information, should increase their usefulness.

The new form of the tables provides the monthly medians and, in addition, the number of values entering into median determination (count) for all ionospheric characteristics listed. Also, the upper and lower quartile values, indicated by UQ and LQ in the tables, are listed for foF₂, h'F₂, h'F, and (M3000)F₂. Quartile values are not listed for the other characteristics because of space limitations. The tables are prepared by IBM machine methods; which, by improving the speed and efficiency of preparation, permit earlier publication of the data.

Graphs of critical frequencies and (M3000)F₂ will continue to appear as in past issues. Graphs of percentage of time of occurrence for fEs and virtual heights of the regular ionospheric layers will no longer appear. This change is necessary to provide space for the enlarged tables. Data on percentage of time of occurrence of fEs above 3, 5, and 7 Mc will still be available from the CRPL and the IGY World Data Center A for Airglow and Ionosphere.

For many years, the tables of ionospheric data appearing in the F-series, Part A, listed values of medians recomputed at CRPL. While this practice enforced a certain uniformity, it is subject to some valid criticism for tampering with original data. The tables and graphs now show the ionospheric data just as they are provided by the originating laboratory. Responsibility for the accuracy and reliability of the data now rests entirely with the originator.

Gaps in the tables when data normally might be expected indicate the data were not provided by the originator. Following the recommendation of the World-Wide Soundings Committee, only values of median foEs are listed. In the few cases where fEs is still reported instead of foEs, the data will not be printed. Data will appear in the F-series, Part A, only when the complete daily-hourly tabulations have been received by the CRPL or the IGY World Data Center A for Airglow and Ionosphere.

Information on symbols, terminology, and conventions may be found in the "URSI Handbook of Ionogram Interpretation and Reduction, of the World-Wide Soundings Committee," edited by W. R. Piggott and K. Rawer (Elsevier, 1961), which supersedes previous documents. A list of symbols is available from CRPL on request.

The following table contains the latest available information on smoothed observed Zurich sunspot numbers, beginning with the minimum of April 1954. Final numbers are listed through June 1961, the succeeding values being based on provisional data.

Smoothed Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23	29	35	40	46	55	64	73	81
1956	89	98	109	119	127	137	146	150	151	156	160	164
1957	170	172	174	181	186	188	191	194	197	200	201	200
1958	199	201	201	197	191	187	185	185	184	182	181	180
1959	179	177	174	169	165	161	156	151	146	141	137	132
1960	129	125	122	120	117	114	109	102	98	93	88	84
1961	80	75	69	64	60	56	53	52	52			
1962												

Units of Ionospheric Data Tables

foF2, foF1, foEs - Tenths of a megacycle
 foE - - - - - Hundredths of a megacycle
 h'F2, h'F, h'E - - Kilometers
 (M3000)F2 - - - - Hundredths

MED - Median
 CNT - Count
 UQ - Upper Quartile
 LQ - Lower Quartile

WORLD - WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 96 and figures 1 to 96 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina
Tucuman, Argentina

Commonwealth of Australia, Ionospheric Prediction Service of the
Commonwealth Observatory:
Wilkes Station, Antarctica

Universidad Mayor de San Andres:
La Paz, Bolivia

Electronics Directorate of the Brazilian Navy:
Natal, Brazil

Escola Politecnica, University of Sao Paulo:
Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio
Research Board:
Halley Bay

Defence Research Board, Canada:
Alert, Canada

Universidad de Concepcion:
Concepcion, Chile

Danish National Committee of URSI:
Godhavn, Greenland
Narssarssuaq, Greenland

French National Center for Geophysical Studies:
Garchy, France

French National Center for Telecommunications Studies:
Kerguelen I.
Terre Adelie

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover, Germany:
Tsumeb, South West Africa

Ionospheric Institute, Breisach, Germany:
Freiburg, Germany

The Royal Netherlands Meteorological Institute:
Paramaribo, Surinam

Central Institute of Meteorology, Budapest, Hungary:
Budapest, Hungary

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

Manila Observatory:
Baguio, P. I.

South African Council for Scientific and Industrial Research:
Marion I., Union of South Africa

United States Army Signal Corps:
Adak, Alaska
Grand Bahama I.

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
Boulder, Colorado
Byrd Station, Antarctica
Fairbanks (College), Alaska (Geophysical Institute of the University
of Alaska)
Maui, Hawaii
Point Barrow, Alaska
Pole Station, Antarctica
Washington, D. C.

TABULATIONS OF ELECTRON DENSITY DATA

Reduction of hourly ionospheric vertical soundings to electron density profiles has become a part of the systematic ionospheric data program of the Central Radio Propagation Laboratory, National Bureau of Standards. Scalings of ionograms for this purpose are being provided by ionosphere stations operated by several stations associated with CRPL. For the present, the hourly profile data from one CRPL station, Puerto Rico, are appearing in the monthly CRPL-F Reports, Part A. The very considerable task of scaling the ionograms for this purpose is being undertaken by T. R. Gilliland, Engineer in Charge, Puerto Rico Ionosphere Sounding Station; the computations are performed at the NBS Boulder Laboratories by a group headed by J. W. Wright. Basic conversion of virtual to true heights uses the well-known matrix method developed by K. G. Budden of the Cavendish Laboratory, Cambridge University, programmed by Dr. H. H. Howe for a CDC-1604 computer.

The tabulations provide the following basic electron density profile data for each hour of each day of the month:

<u>Quantity</u>	<u>Units</u>	<u>Remarks</u>
Electron Density (N)	$\times 10^3 = \text{electrons/cm}^3$	Body of table; given at each 10 km of height.
NMAX	$\times 10^3 = \text{electrons/cm}^3$	Always the highest value of N at each hour. To maintain this rule, the electron density at the next 10 km increment above HMAX is always given as exactly equal to NMAX (unless HMAX coincides with a 10 km level).
QUALification	(Alphabetic)	A standard scaling letter qualifying the observation when necessary.
KP		The standard Kp magnetic index, to one digit.
HMIN	Kilometers	The height of zero or very low electron density, obtained by linear extrapolation of the electron density vs. height curve.
SCAT	Kilometers	One half of the half-thickness of the parabola best fitting the upper portion of the F region profile. Approximates the scale height near the level HMAX.
HMAX	Kilometers	The height of maximum electron density, determined by fitting a parabola to the upper portion of the profile.
SHMAX	$\times 10^{10} = \text{electrons/cm}^2$ column.	Obtained by integration of the profile between the limits HMIN and HMAX.

Tabulations of the average electron densities each hour, at each 10 km level, for the quiet ionosphere, are also given. These averages include the profiles obtained when the magnetic character figure Kp is 4+ or less. The number of profiles entering the average for each hour is given by CNT. The other parameters of the layer, HMIN, SCAT, HMAX, SHMAX, and the mean value of Kp are given for each hour.

Before the averaging process, the individual profiles are extrapolated above HMAX by a Chapman distribution of 100 km scale height. This assumed model seems to agree well with the few published measurements dealing with the topside profile of the F-region.* Extrapolation is necessary in order to calculate homogeneous averages near HMAX and the average profiles are, in fact, given up to 950 km. Also given are the average estimated integrated electron densities to infinity, SHINF (same units as SHMAX); this is an approximation to the total electron content in a column of the ionosphere.

*See Wright, J. W. "A Model of the F-Region Above HMAX F2" J.Geophys.Res. V.65 pp. 185-191.

ELECTRON DENSITY

RAYEY AF8, PUERTO RICO

60 W

1 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q _z KP	2	F2	A4	A4	A4	F5	5	55	8	8	8	6
HM1N	251	246	211	215	200	237	219	110	108	104	108	105
SCAT	34.7	35.3	35.8	35.6	33.1	42.9	45.1	33.5	41.7	68.9	39.3	43.4
HMAXF	329	318	293	277	261	331	337	246	279	339	273	257
SHMAX	89	113	146	158	87	128	155	217	561	1146	1200	702
KM												
340						215	224			980		
330						215	222			977		
320		179				212	216			963		
310		166	242			203	203			938		
300		148	229	296		187	187			903		
290		126	206	296		166	167			860		
280	96.9	171	287	390		139	144		782	804	1965	
270	64.2	122	266	387	205	110	120		773	745	1962	
260	34.6	62.3	236	369	205	75.5	95.3		741	684	1910	985
250		23.9	196	336	199	43.3	71.1	380	686	618	1795	979
240			138	268	184	16.2	49.3	377	612	547	1614	949
230			75.9	117	159		30.3	359	512	480	1323	890
220			37.1	31.9	122		6.8	324	409	418	941	809
210					68.7			277	324	364	632	703
200					12.4			217	256	317	446	569
190								159	204	275	341	441
180								111	169	239	279	336
170								78.6	133	208	241	267
160								59.7	111	180	209	222
150								50.6	97.7	154	181	180
140								47.8	89.3	133	157	149
130								41.4	79.3	115	138	137
120								29.7	63.9	99.2	127	132
110								13.0	53.7	93.5	88.4	109

ELECTRON DENSITY

RAYEY AF8, PUERTO RICO

60 W

1 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q _z KP	6	6	5	5	A5	5	55	5	5	5	5	5
HM1N	108	106	106	108		109	100	224	207	214	218	217
SCAT	107	47.3	39.1	42.2		46.0	53.1	51.8	41.5	38.5	32.5	34.0
HMAXF	452	300	287	278		297	326	335	316	306	297	286
SHMAX	1754	1304	1371	961		615	793	603	449	355	300	172
KM												
460												
450												
440												
430												
420												
410												
400												
390												
380												
370												
360												
350												
340												
330												
320												
310												
300												
290												
280												
270												
260												
250												
240												
230												
220												
210												
200												
190												
180												
170												
160												
150												
140												
130												
120												
110												
100												

ELECTRON DENSITY

RAYEY AF8, PUERTO RICO

60 W

2 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q _z KP	5	5	4	24	A4	6	6	S6	5	5	5	6
HM1N	218	228	243	224	231	298	250	100	108	106	108	107
SCAT	44.3	57.8	44.7	36.2	52.1	45.8	45.6	37.1	26.5	33.6	45.2	39.7
HMAXF	323	341	355	308	361	409	347	286	269	259	288	274
SHMAX	232	277	250	178	242	219	202	342	595	728	1093	1157
KM												
410						342						
400						338						
390						326						
380						307						
370						326	278					
360				390		326	241					
350			387	389		322	198	335				
340			387	379		313	151	333				
330		383	383	359		296	99.0	323				
320		383	374	330		275	59.9	306				
310		374	359	292	358	247	34.1	278				
300		355	338	245	353	213	12.4	240				
290		329	312	195	336	176		192	517			
280		290	272	141	305	137		139	514		1404	
270		237	216	89.6	259	100		81.9	493	1179	1346	1854
260		176	148	50.9	199	69.3		40.2	454	1147	1298	1854
250		116	85.1	25.2	129	44.9		3.1	398	1035	1273	1591
240		69.7	44.6		68.6	25.4			331	832	1190	1507
230		38.6	16.5		30.0				256	602	1050	896
220									195	430	833	694
210									148	314	568	551
200									113	237	387	438
190									88.5	187	289	355
180									71.3	152	232	294
170									59.6	125	195	247
160									51.4	106	166	208
150									46.0	91.0	140	178
140									42.6	83.0	121	152
130									40.2	79.1	110	132
120									35.4	69.9	104	122
110									28.6	40.4	55.0	73.8
100									13.0			49.1

ELECTRON DENSITY

RAYEY AF8, PUERTO RICO

60 W

2 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q _z KP	6	6	6	6	6	6	56	6	A7	A7	7	6
HMIN	105	105	106	104	108	110	100	229	210	218	274	259
SCAT	42.2	77.6	56.7	42.3	50.8	54.3	39.5	37.8	38.1	50.0	40.4	64.3
HMAXF	268	322	310	295	295	306	286	310	290	354	370	397
SHMAX	903	1285	1233	1232	1192	841	667	437	273	296	257	349
KM												
400												409
390												407
380											436	401
370											436	390
360										392	429	374
350										392	405	353
340										385	376	324
330		1105								370	336	289
320		1105				1027		898		346	286	249
310		1099	1353					898		318	226	204
300		1083	1344	1735	1561	1024		882		283	159	158
290		1058	1313	1728	1558	1005	1157	835	541	244	95.7	113
280		1023	1262	1678	1529	969	1150	756	532	205	34.2	74.4
270	1240	980	1186	1575	1470	913	1109	637	505	164		41.8
260	1230	927	1092	1426	1381	844	1030	478	458	123		12.4
250	1186	861	964	1220	1258	755	911	239	393	86.8		
240	1106	786	822	977	1097	644	755	80.2	306	58.1		
230	994	707	683	758	878	516	556	12.4	193	33.5		
220	856	621	554	586	662	393	355		79.4	12.4		
210	689	536	446	452	495	296	219					
200	541	454	367	356	369	222	130					
190	424	382	310	290	278	168	79.6					
180	344	321	268	242	218	130	54.6					
170	290	272	234	207	177	103	40.4					
160	249	236	206	177	146	83.0	32.7					
150	214	202	180	152	125	69.5	28.3					
140	183	162	151	131	110	64.8	25.8					
130	159	142	132	119	102	62.8	24.5					
120	147	134	125	113	96.8	56.9	22.7					
110	120	122	96.9	70.5	49.1	12.4	19.7					
100							13.0					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

3 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q _z KP	3	3	4	4	4	A4	A4	A4	A2	A2	A2	A2
HMIN	107	108	109	108	109	110			200	198		
SCAT	39.4	37.0	40.2	41.7	36.2	37.0			59.2	33.6		
HMAXF	269	267	266	288	274	269			310	263		
SHMAX	814	812	749	944	830	716			127	35		
KM												
310									163			
300									162			
290				1298					159			
280				1286	1424				153			
270	1131	1206	1121	1237	1419	1298			144	77.9		
260	1115	1194	1117	1151	1371	1280			135	77.7		
250	1063	1139	1085	1026	1265	1215			122	75.0		
240	970	1040	1017	867	1108	1101			107	69.1		
230	864	898	916	695	869	947			89.6	58.6		
220	734	721	772	535	611	718			68.1	45.7		
210	596	573	577	420	408	491			42.5	31.4		
200	465	440	427	341	292	262			1.7	12.4		
190	365	370	336	287	226	152						
180	308	308	280	245	184	109						
170	267	267	243	210	152	86.4						
160	227	228	198	182	125	71.7						
150	180	183	158	160	108	65.3						
140	149	138	144	136	102	62.1						
130	138	126	138	117	99.5	60.6						
120	133	121	123	101	84.4	53.2						
110	99.0	100	33.3	42.3	23.7	.4						

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

4 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q _z KP	A3	A3	A1	A1	A1	A2	A2	A2	A1	A1	A1	A2
HMIN								200		247	227	228
SCAT								36.9		36.7	45.0	38.3
HMAXF								264		329	315	313
SHMAX								74		70	99	91
KM												
330										136		
320										134		
310										127	175	171
300										115	170	166
290										97.3	163	155
280										75.5	148	139
270								156		51.9	124	116
260								156		33.1	94.0	89.4
250								151		15.6	64.3	62.3
240								139			38.9	35.8
230								123			16.2	12.4
220								102				
210								76.2				
200								12.4				

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO

60 W

5 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	A2	2	2	2	2	0	0	50	2	2	2	4
HMIN	210	218	216	221	206	197	198	100	110	108	112	108
SCAT	31.6	41.4	31.4	33.0	32.6	39.9	39.9	30.0	31.9	27.8	28.2	39.6
HMAXF	284	309	287	285	278	284	280	227	236	236	237	242
SHMAX	74	94	77	77	69	65	57	163	300	392	469	510
KM												
310		168										
300		166										
290	163	159	179	186		115						
280	163	149	177	185	156	114	103					
270	156	128	166	176	154	111	102					
260	140	105	146	159	144	103	97.0					
250	118	77.0	114	125	127	94.0	89.0					
240	89.0	50.9	75.2	78.2	98.6	81.7	77.1	539	710	898	733	
230	59.5	30.6	43.2	37.5	66.2	66.1	63.2	295	533	703	885	717
220	34.0	12.4	18.4		40.0	48.4	47.9	291	503	655	816	678
210					18.4	30.6	32.7	272	446	561	685	614
200						12.4	12.4	237	361	435	508	516
190								192	269	328	347	422
180								147	197	259	275	347
170								109	148	214	239	292
160								82.6	118	179	209	254
150								65.4	100	152	179	220
140								54.3	90.7	129	146	183
130								49.1	75.4	113	123	150
120								42.0	67.2	102	105	133
110								32.3	12.4	83.0		96.5
100								19.7				

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO

60 W

5 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	4	4	C4	C4	C4	C2	C2	C2	C3	C3	C3	C4
HMIN	109	109										
SCAT	39.7	36.7										
HMAXF	249	264										
SHMAX	558	714										
KM												
270		1031										
260		1029										
250	819	995										
240	808	920										
230	771	810										
220	709	671										
210	610	535										
200	484	422										
190	366	346										
180	296	302										
170	257	270										
160	225	239										
150	189	203										
140	163	170										
130	149	152										
120	141	143										
110	83.2	88.2										

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO

60 W

6 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	C4	C4	C1	C1	C1	C1	C1	C1	C3	C3	C3	C4

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO

60 W

6 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	C4	4	A3	A3	3	2	A2	2	2	2	2	2
HMIN		109			110	110		199	228	239	239	230
SCAT		37.1			42.8	34.0		40.9	50.9	31.7	37.1	44.3
HMAXF		263			261	253		259	332	309	325	326
SHMAX		663			666	431		89	95	80	103	124
KM												
340										142		
330										142		212
320										140		196
310										135	182	188
300										128	178	174
290										118	165	152
280										103	144	123
270										85.5	114	90.3
260		941			985					191	65.9	75.5
250		939			985	782				189	46.8	42.6
240		913			969	781				181	28.4	12.4
230		849			927	754				166	7.7	4.7
220		757			854	691				145		1.9
210		632			765	600				99.9		
200		507			650	485				32.8		
190		407			508	348						
180		340			360	227						
170		298			251	149						
160		266			193	103						
150		238			159	81.1						
140		210			133	68.3						
130		175			113	61.4						
120		145			99.5	58.1						
110		132			94.5	51.3						
		37.2			12.4	.4						

ELECTRON DENSITY

7 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	A0	0	A0	0	0	0	50	0	0	0	0	0
HMIN	109	108	109	108	109	112		200	207	206	217	229
SCAT	63.6	30.2	43.0	44.5	36.7	26.3		22.1	40.4	53.0	44.7	37.1
HMAX,F	271	256	244	244	252	240		246	276	319	308	324
SHMAX	608	615	473	446	422	300		79	74	75	73	71
KM												
330												124
320										103		124
310										102	120	120
300										99.3	119	111
290										94.9	115	98.5
280	621								153	88.6	108	83.8
270	621				651				152	80.1	98.6	67.4
260	617	985							146	69.8	85.1	52.1
250	605	975	678	619	650			271	138	58.0	69.9	37.5
240	585	916	677	617	635	619		267	119	46.4	52.6	24.2
230	554	802	680	603	594	598		238	91.9	35.3	33.6	4.3
220	521	641	625	572	530	532		172	58.0	24.6	15.6	
210	484	495	572	527	441	427		88.2	22.4	12.4		
200	438	388	490	463	367	302		12.4				
190	385	323	375	384	265	212						
180	325	284	294	303	211	151						
170	274	259	244	241	174	118						
160	238	236	211	202	145	98.2						
150	207	213	188	176	124	84.9						
140	171	189	166	148	108	75.7						
130	145	151	129	128	98.0	70.4						
120	130	138	120	106	89.9	52.0						
110	30.3	38.7	38.1	38.1	30.3							

ELECTRON DENSITY

8 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	0	AO	0	0	0	50	50	0	0	0	0	1
HMIN	109	108	110	110	110	108		199	217	258	249	238
SCAT	45.5	60.4	22.6	50.9	32.9	30.4		79.1	36.0	47.8	38.9	31.0
HMAXF	255	273	230	263	245	250		317	278	352	336	316
SHMAX	627	659	367	502	405	333		138	49	78	85	79
KM												
360										123		
350										123		
340										122	155	
330										117	154	
320								156		110	148	171
310								156		99.5	137	170
300								154		86.0	122	160
290								151		70.4	101	141
280		710						147	112	52.5	77.0	114
270		710		651				142	111	33.4	53.8	84.8
260	898	702		650				137	105	12.4	32.8	58.1
250	895	685		640	701	651		127	95.2		4.7	36.0
240	873	658	694	617	697	634		112	78.5			12.4
230	829	626	694	584	665	583		91.8	52.3			
220	767	571	660	529	600	493		69.8	21.5			
210	646	495	556	447	503	361		45.2				
200	484	416	428	350	383	240		12.4				
190	356	353	327	274	274	163						
180	289	309	276	225	206	120						
170	250	278	245	183	169	94.8						
160	215	250	222	148	143	79.4						
150	181	220	199	129	123	69.0						
140	154	175	163	123	107	60.7						
130	146	142	135	119	97.2	56.4						
120	134	133	112	99.7	80.1	54.2						
110	30.3	38.1		12.4	12.4	19.3						

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	11 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q,KP	3	3	4	4	4	3	3	S3	S1	A1	S1	A3	
HMIN	218	227	230	199	197	247	217	100	112		108	110	
SCAT	49.3	39.8	44.3	31.6	76.7	52.3	52.0	36.2	30.1		28.8	24.6	
HMAXF	321	325	328	271	340	348	330	260	248		252	231	
SHMAX	104	102	112	85	126	98	118	201	351		541	415	
KM													
350					129	145							
340					129	144	170						
330	160	178	186		129	141	170						
320	160	177	184		127	135	168						
310	158	172	178		124	125	163						
300	153	160	168		120	111	155						
290	144	144	150		116	92.3	144						
280	131	124	127	196	110	73.3	129						
270	111	98.7	96.9	196	102	54.6	108						
260	88.9	69.8	68.9	190	91.9	36.7	84.7	311		999			
250	67.7	46.4	46.4	175	80.1	16.2	62.8	306	678				
240	48.2	28.2	27.5	147	66.9		44.6	288	667	954	815		
230	30.3	12.4	2.4	105	54.0		28.6	259	621	850	815		
220	12.4			66.9	40.5		12.4	219	530	684	772		
210				38.7	27.3			176	380	498	663		
200				12.4	12.4			133	257	345	516		
190								101	188	267	367		
180								78.1	147	226	280		
170								62.3	118	191	237		
160								51.3	101	161	207		
150								43.3	92.1	129	175		
140								37.7	87.9	120	144		
130								34.8	78.8	116	134		
120								32.6	53.8	111	125		
110								28.7		43.7	12.4		
100								13.0					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	11 DEC 1961
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Q,KP	A3	3	3	3	3	A2	A2	A2	3	A3	3	3	
HMIN	110	109	109	109	109	109		199	207	197	207	218	
SCAT	25.1	43.1	33.8	37.1	41.5	40.4		43.6	72.6	35.0	50.5	33.4	
HMAXF	226	249	250	282	261	264		271	334	291	335	309	
SHMAX	348	419	473	668	685	497		100	109	86	114	101	
KM													
340										118		149	
330										118		149	
320										117		146	
310										115		140	197
300										111	155	131	193
290					882					107	155	120	181
280					882					194	101	151	106
270					861	1080	782			194	94.8	139	91.8
260					806	1080	780			191	86.7	125	77.0
250			554	714	725	1059	758			183	77.7	107	62.0
240			548	699	628	1008	712			170	66.2	87.3	48.7
230	648	527	653	526	925	641				150	52.4	67.0	36.5
220	637	491	575	432	796	539				116	34.4	47.7	25.3
210	576	440	472	359	609	416				66.8	15.8	29.5	12.4
200	481	377	376	303	435	301				12.4		12.4	
190	366	315	305	264	299	223							
180	282	263	259	235	222	164							
170	241	228	228	209	181	123							
160	205	196	204	185	154	95.3							
150	167	154	181	163	132	78.2							
140	145	136	155	140	115	67.0							
130	135	129	134	119	101	60.4							
120	130	124	124	110	91.6	57.2							
110	12.4	33.3	30.3	33.8	33.0	22.0							

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	12 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q,KP	3	3	A0	0	0	0	0	A0	1	1	1	1	
HMIN	217	202	199	199	198	227	217		108	108	109	110	
SCAT	26.4	24.5	16.9	28.0	80.2	40.4	48.6		30.1	29.7	30.5	27.5	
HMAXF	286	249	236	244	347	308	325		256	246	249	240	
SHMAX	106	87	39	37	106	66	82		372	392	529	505	
KM													
350					98.0								
340					97.9								
330					97.0		123						
320					95.3		123						
310					92.9	123	120						
300					89.5	122	115						
290	271				85.9	117	108						
280	267				81.1	108	94.8						
270	244				76.0	94.5	79.1						
260	205				70.4	73.4	63.5		768				
250	151	293		111	64.4	52.7	49.5		760	727	936		
240	92.2	283	170	110	58.2	33.5	36.7		713	719	915	1017	
230	48.3	249	165	103	51.6	15.6	25.3		616	672	838	984	
220	19.9	167	131	89.2	43.3		12.4		432	581	717	883	
210		50.4	64.7	60.6	32.4				281	455	551	672	
200			12.4	12.4	12.4				179	312	402	438	
190									127	231	299	314	
180									92.5	184	244	258	
170									77.8	147	209	225	
160									70.3	114	178	194	
150									65.9	100	147	164	
140									63.0	93.7	122	137	
130									61.1	89.7	113	125	
120									59.6	87.3	110	120	
110									42.1	49.1	41.8	12.4	

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO								60 W		12 DEC 1961			
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Q,KP	1	A1	A0	A0	0	0	50	0	0	0	0	0	
HMIN	109		109	108	108	110	100	199	203	233	228	210	
SCAT	26.6		32.1	36.2	39.1	28.5	33.7	29.9	58.1	41.6	34.0	23.5	
HMAXF	234		247	257	258	243	249	257	309	320	306	250	
SHMAX	397		434	486	449	348	202	72	72	76	73	56	
KM													
320										135			
310										94.1	133	149	
300										93.5	128	148	
290										91.5	118	141	
280										88.1	104	127	
270										82.9	84.9	108	
260					710	651		197	77.1	61.5	85.5		
250			681	704	643	714	368	194	70.2	39.4	59.3	197	
240	681		673	673	615	712	360	181	62.2	22.2	34.3	188	
230	678		633	615	563	679	336	155	53.4		12.4	161	
220	637		559	527	502	602	297	96.9	41.1			103	
210	550		451	428	419	459	242	50.3	23.0			12.4	
200	450		356	342	334	320	178	12.4					
190	351		292	281	260	219	123						
180	289		251	238	207	153	84.5						
170	252		222	206	168	120	59.1						
160	221		195	182	139	98.8	42.6						
150	191		176	160	117	84.2	32.6						
140	156		146	138	101	73.7	26.9						
130	133		119	118	92.6	67.3	24.6						
120	126		103	99.5	86.1	56.4	23.4						
110	33.0		24.1	31.7	40.4	12.4	21.1						
100							13.0						

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	13 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q,KP	0	0	0	0	0	1	A1	81	0	A0	0	1	
HMIN	218	214	229	217	219	220	219	100	109	109	109	110	
SCAT	31.3	35.9	30.9	37.7	35.0	38.7	36.0	39.5	27.3	25.5	29.2	30.3	
HMAXF	283	287	292	286	282	297	287	252	229	239	245	235	
SHMAX	54	66	64	76	61	60	54	150	269	309	402	389	
KM													
300			156			118							
290	124	140	156	159	142	117	113						
280	124	138	151	158	142	112	112						
270	119	132	138	152	138	104	107						
260	107	120	113	140	128	89.4	97.0						
250	90.4	102	80.4	119	112	70.6	83.3	221		707			
240	69.6	76.2	42.2	91.0	83.3	48.2	63.9	216		648	702	681	
230	43.8	47.0	12.4	59.0	44.9	28.0	40.4	202	536	626	661	677	
220	16.8	22.3		22.7	12.4	1.9	12.4	185	521	555	574	641	
210								162	471	426	439	568	
200								134	374	272	326	437	
190								104	272	198	265	320	
180								76.6	195	152	230	263	
170								56.5	151	108	203	232	
160								43.6	122	96.3	171	206	
150								35.8	103	90.2	131	178	
140								32.1	90.6	86.3	116	147	
130								30.2	83.9	84.0	110	125	
120								28.4	56.5	81.9	87.6	108	
110								25.1	24.1	26.0	12.4	12.4	
100								15.6					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO						60 W				13 DEC 1961			
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Q,KP	1	1	A1	A1	A1	3	S3	A3	3	A3	3	1	
HMIN	108	107	109			112	100	199	198	254	219	214	
SCAT	28.5	51.2	31.1			34.5	26.3	29.4	45.3	35.0	34.7	36.2	
HMAXF	236	251	240			243	230	263	285	334	310	294	
SHMAX	424	463	373			241	159	68	70	65	93	100	
KM													
340										129			
330										129			
320										124			
310										113	178		
300										98.4	175	206	
290									118	78.2	164	205	
280									118	55.6	146	198	
270								167	115	36.6	122	182	
260								166	109	20.6	94.4	158	
250		591	567			399		158	100		68.1	123	
240	761	584	567			399	342	140	87.5		45.5	84.5	
230	753	566	552			386	342	111	71.4		26.6	48.5	
220	704	536	506			357	328	78.9	50.9		3.1	22.8	
210	600	495	437			313	290	44.4	31.8				
200	454	418	363			258	233	12.4	12.4				
190	328	327	301			197	166						
180	268	269	254			148	110						
170	235	236	225			114	70.9						
160	207	210	202			91.8	50.1						
150	181	166	179			76.2	37.8						
140	157	138	150			64.4	30.9						
130	137	129	129			58.9	27.4						
120	116	124	116			49.7	25.9						
110	36.1	81.2	33.0				23.7						
100							15.6						

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	14 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q,KP	1	A1	A1	1	1	0	0	50	0	A0	0	1	
HMIN	217	227	217	218	238	239	226	100	109	109	105	109	
SCAT	17.8	51.5	27.6	53.3	43.0	46.3	44.1	34.0	29.7	40.7	38.9	21.4	
HMAXF	249	318	276	325	322	333	309	256	239	249	247	233	
SHMAX	53	89	60	119	92	87	90	231	292	467	514	435	
KM													
340													
330													
320													
310													
300													
290													
280													
270													
260													
250													
240													
230													
220													
210													
200													
190													
180													
170													
160													
150													
140													
130													
120													
110													
100													

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO						60 W				14 DEC 1961			
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Q,KP	A1	A1	A1	A1	A1		2	S2	A2	1		1	3
HMIN	109	109	110	109		108	100	200	218	227	230	204	
SCAT	36.1	23.8	37.6	28.4		32.4	25.3	31.3	44.7	41.8	34.8	32.2	
HMAXF	236	231	232	246		258	224	249	309	300	300	260	
SHMAX	411	375	311	426		370	175	51	87	99	98	56	
KM													
310										145	195		
300										143	195	223	
290										138	192	218	
280										130	184	204	
270										117	170	181	140
260						639			99.9	146	139	140	
250				761		628		136	81.7	112	84.0	136	
240	639	681	471	752		585		133	58.5	66.2	40.9	126	
230	634	681	471	701		519	430	124	34.0	23.7	3.1	109	
220	606	646	459	591		435	427	107	12.4			82.0	
210	553	551	430	435		338	397	78.0				36.2	
200	466	421	382	317		246	334	12.4					
190	371	323	308	251		179	247						
180	295	271	249	214		133	142						
170	249	245	214	191		102	73.2						
160	222	225	181	175		79.6	43.5						
150	199	203	145	156		62.6	31.7						
140	159	171	133	128		55.4	25.6						
130	140	138	127	114		51.7	22.9						
120	116	128	119	106		50.0	21.8						
110	23.7	30.3	12.4	33.0		33.0	19.8						
100							13.0						

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO											60 W	15 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	3	3	2	2	52	2	2	52	2	2	A2	A1
HMIN	199	231	231	239	208	199	217	100	108	108	110	
SCAT	44.1	36.7	28.8	29.0	23.4	38.2	43.5	29.9	34.4	28.7	37.7	
HMAXF	291	309	293	303	257	271	306	244	234	249	263	
SHMAX	109	106	96	113	87	67	65	151	232	367	529	
KM												
310		214		284				108				
300		179	210	238	283			108				
290		179	199	238	270			104				
280		176	180	225	239		135	98.6				
270		169	151	200	194		135	89.8				
260		157	116	163	128	281	133	78.7				
250		140	75.8	116	60.1	275	125	65.5	259			
240		119	35.8	59.8	12.4	243	113	51.1	258	366	648	746
230	95.4					184	93.8	33.5	244	364	595	659
220	70.1					86.2	69.8	15.6	216	350	489	522
210	42.8					18.4	39.6		178	319	361	388
200	12.4						12.4		139	279	264	296
190									107	228	210	247
180									80.5	182	175	216
170									62.8	144	143	184
160									50.8	117	117	141
150									42.4	96.7	103	122
140									37.4	87.8	96.2	114
130									35.4	76.4	92.4	110
120									34.2	64.0	88.9	97.2
110									31.5	48.2	53.4	12.4
100									13.0			

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO											60 W	15 DEC 1961
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	A1	A1	A0	A0	A0	A3	A3	A3	A1	A1	1	1
HMIN		108							230	224	229	199
SCAT		30.4							48.3	36.0	41.6	37.9
HMAXF		240							324	290	318	275
SHMAX		460							93	96	132	113
KM												
330									148			
320									148		236	
310									145		234	
300									139	214	226	
290									130	214	210	
280									117	210	188	235
270									99.3	198	158	234
260									78.2	177	121	226
250									52.4	141	77.8	209
240		747							28.6	88.6	39.9	182
230		728							1.9	35.5	12.4	138
220		669										81.0
210		562										42.2
200		448										12.4
190		347										
180		288										
170		255										
160		228										
150		205										
140		186										
130		153										
120		139										
110		38.7										

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO											60 W	16 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	1	1	1	1	1	1	1	S1	1	1	1	0
HMIN	208	239	231	208	207	217	210	108	108	108	110	109
SCAT	39.7	33.7	39.2	22.4	69.0	57.1	36.4	35.4	39.3	33.4	32.6	34.8
HMAXF	298	318	302	249	330	335	281	235	242	244	244	245
SHMAX	79	96	128	75	173	130	91	141	296	338	433	424
KM												
340						170						
330						197	170					
320			202			195	167					
310			199	269		192	162					
300		142	188	269		187	155					
290		141	168	262		180	144	196				
280		135	140	247		170	129	196				
270		125	105	222		159	110	191				
260		110	63.7	178		147	90.3	178				
250	89.1	34.8	116	266	131	70.8	159		426	517	710	621
240	65.2	5.4	47.5	256	111	52.3	126	253	426	515	708	619
230	43.6			218	84.9	33.8	82.5	252	416	494	677	593
220	27.1			143	55.7	15.8	42.7	242	389	452	614	543
210	7.7			37.6	19.3		3.1	222	354	385	519	470
200								189	314	317	400	386
190								141	268	260	300	314
180								97.7	223	214	242	266
170								69.7	175	178	206	233
160								51.6	137	147	177	205
150								40.9	111	120	149	172
140								37.0	96.6	104	131	141
130								33.0	72.9	96.7	121	131
120								24.8	61.1	92.4	115	126
110								7.7	36.6	82.3	19.7	59.8

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO											60 W	16 DEC 1961
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	0	A0	0	A0	A0	A2	A2	2	A2	2	2	1
HMIN	110	109	109	110	118			200		238	223	210
SCAT	26.4	44.2	46.6	34.6	35.6			26.1		39.1	40.0	34.7
HMAXF	230	239	255	250	263			234		321	318	279
SHMAX	365	432	421	393	466			40		88	113	110
KM												
330										167		
320										167	197	
310										164	194	
300										154	186	
290										140	172	
280										120	152	254
270					740					92.7	126	250
260				505	739					60.7	97.8	236
250				504	564	716				34.6	69.5	207
240	648	588	492	553	664			142		12.4	44.0	158
230	648	581	471	519	573			142		23.1	89.9	
220	623	560	435	461	452			132				40.5
210	553	525	386	393	344			111				3.1
200	432	465	334	323	267			19.7				
190	324	384	290	270	220							
180	270	315	256	230	189							
170	241	267	230	201	163							
160	216	235	209	178	138							
150	188	210	183	160	117							
140	161	176	148	144	102							
130	140	148	123	121	94.9							
120	126	139	116	99.3	35.5							
110	12.4	56.5	41.8	12.4								

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

17 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q ₁ KP	1	1	1	1	A1	A1	A1	S1	0	0	0	0
HMIN	225	228	237	227	238			217	110	110	109	108
SCAT	49.1	42.2	37.1	34.2	45.5			33.2	25.9	35.9	39.9	33.7
HMAXF	311	324	314	295	328			289	233	231	254	244
SHMAX	141	131	131	120	132			78	134	216	396	439
KM												
330		225			224							
320		235	224	265	222							
310		235	218	264	215							
300		232	206	255	278	202						
290		225	188	236	276	185						
280		213	161	207	265	161						
270		194	130	164	242	127						
260		168	96.0	116	201	85.3						
250		132	62.2	61.4	138	46.5						
240		86.7	35.7	19.9	69.5	16.5						
230		31.7	12.4		24.0							
220												
210												
200												
190												
180												
170												
160												
150												
140												
130												
120												
110												

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

17 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	A0	0	A0	A0	0	1	S1	1	1	1	1	1
HMIN	109	108	110	109	109	108	100	199	198	238	236	218
SCAT	25.8	27.9	40.7	45.7	34.2	32.5	26.5	24.5	67.0	57.3	30.6	29.8
HMAXF	226	226	238	274	256	259	230	244	326	346	309	274
SHMAX	342	336	317	443	383	363	189	43	85	107	92	93
KM												
350											148	
340											147	
330											93.6	145
320											93.5	140
310											92.3	133
300											90.2	124
290											87.0	110
280				491							82.5	92.1
270				491							77.3	72.9
260				480	591	678					70.9	52.5
250				458	586	666					64.0	31.4
240			446	425	557	623	392	142	64.0	31.4	44.8	203
230	562	567	441	382	503	544	392	130	49.7			91.4
220	553	560	423	339	422	418	377	104	40.5			20.5
210	504	520	392	303	341	279	334	61.7	29.3			
200	420	442	346	272	272	188	268	12.4	12.4			
190	338	346	283	248	220	138	197					
180	285	278	231	223	183	109	136					
170	255	243	196	198	152	88.5	95.1					
160	236	220	159	171	123	74.2	67.5					
150	218	202	141	141	101	65.1	52.3					
140	191	171	133	117	92.1	60.4	42.5					
130	153	134	128	104	88.1	57.9	37.2					
120	133	122	122	99.2	82.9	51.3	34.8					
110	41.8	95.4	12.4	37.2	30.3	20.5	31.2					
100							13.0					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

18 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q ₁ KP	1	F1	F0	A0	F0	F0	0	A0	A0	A0	0	0
HMIN	207	246	224	207	199	220	218	100	110	109	110	109
SCAT	39.7	29.3	25.8	30.5	31.9	40.9	45.8	24.4	36.7	32.6	38.7	27.1
HMAXF	298	313	274	274	273	300	300	239	242	241	251	236
SHMAX	96	88	80	94	72	68	66	120	239	350	470	369
KM												
320		210										
310		209										
300		171	199									
290		169	177									
280		162	148	246	235	163	116	110				
270		149	109	244	234	163	107	103				
260		132	60.6	227	224	156	93.7	92.5				
250		108	23.8	191	200	141	77.0	78.8				
240		82.5		118	156	120	58.9	58.9				
230		57.8		36.6	93.0	82.7	37.2	35.6				
220		35.0			48.5	51.9	3.9	12.4				
210		15.8			19.3	29.5						
200						7.4						
190												
180												
170												
160												
150												
140												
130												
120												
110												
100												

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

18 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	A0	0	0	0	0	A0	S0	A0	A0	A0	0	0
HMIN	109	108	108	108	110		100		197	239	231	232
SCAT	56.4	29.4	35.6	45.8	24.4		30.3		66.4	31.8	28.2	33.5
HMAXF	248	245	255	262	232		236		328	294	296	303
SHMAX	372	386	421	484	290		167		96	53	64	85
KM												
330											107	
320											107	
310											105	
300											102	135
290											98.2	134
280											92.9	128
270											86.4	115
260				616	647						79.0	93.7
250	442	588	613	636							70.7	58.2
240	440	584	589	609	585		334				61.6	12.4
230	430	551	544	569	584		331				51.3	
220	414	482	459	510	550		310				39.6	
210	393	386	356	438	464		273				27.4	
200	356	311	280	344	331		215				12.4	
190	306	269	241	257	243		148					
180	259	245	216	216	193		96.7					
170	232	221	195	171	160		66.2					
160	198	192	174	132	137		46.0					
150	146	156	142	121	121		35.1					
140	130	146	129	114	104		30.8					
130	123	140	123	111	90.2		29.1					
120	117	133	118	108	82.8		27.5					
110	32.9	73.8	43.7	40.4	12.4		24.6					
100							13.0					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	19 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q ₀ KP	0	0	F0	F0	0	0	0	50	0	0	0	1	
HMIN	236	219	238	220	201	198	225	100	109	109	108	109	
SCAT	33.3	32.9	31.1	31.1	20.4	44.8	42.5	28.6	54.4	28.2	42.1	105	
HMAXF	303	300	296	278	240	309	310	239	260	231	233	331	
SHMAX	89	93	92	129	79	99	76	138	319	287	313	853	
KM													
340												562	
330												562	
320												560	
310	199	191				142	133					556	
300	199	191	236			141	132					549	
290	191	186	234			136	126					540	
280	175	172	221	334		127	116					528	
270	150	152	195	328		116	104	374				510	
260	112	126	156	305		104	87.1	374				494	
250	73.1	92.7	79.0	265	311	90.4	66.3	371				477	
240	27.8	57.5	18.4	200	311	75.5	42.9	243	362	510	430	459	
230		31.1		79.2	291	60.0	20.7	237	346	510	429	441	
220		6.4		12.4	232	45.1		216	322	489	420	422	
210					91.4	30.0		183	296	436	398	400	
200						12.4		144	267	359	363	373	
190								110	232	282	319	344	
180								84.8	193	216	272	311	
170								66.1	152	177	227	269	
160								53.6	121	143	192	232	
150								45.0	102	116	159	205	
140								38.7	87.1	102	132	177	
130								35.1	65.3	96.3	123	145	
120								32.4	56.0	89.0	119	132	
110								28.4	32.5	38.1	80.3	76.0	
100								15.6					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	19 DEC 1961
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
Q ₀ KP	A1	1	0	0	0	0	50	0	0	0	0	0	
HMIN	109	109	109	109	110	100	200	191	212	228	206		
SCAT	25.3	33.0	36.6	39.3	33.0	40.0	21.7	30.8	41.1	45.8	42.4		
HMAXF	236	229	237	244	242	256	246	232	276	319	275		
SHMAX	396	325	352	333	242	236	80	31	56	86	66		
KM													
320											142		
310											140		
300											136		
290											128		
280										121	116	130	
270										121	100	129	
260							371			117	82.0	126	
250							369	271		109	60.9	119	
240	648		515	484	427	357	267	96.7	96.9	37.5	108		
230	638	491	510	470	413	331	235	96.6	72.2	12.4	91.6		
220	582	482	487	440	380	298	175	92.8	35.8	64.2			
210	480	451	445	397	320	250	89.2	84.7		26.7			
200	380	396	385	337	243	196	12.4	58.0					
190	309	328	313	272	178	144							
180	267	272	257	215	132	102							
170	245	239	224	178	103	73.6							
160	230	212	198	152	83.7	54.4							
150	212	187	173	129	69.3	40.9							
140	187	167	147	106	61.1	32.8							
130	153	150	127	93.6	58.1	27.7							
120	133	127	119	90.6	54.8	25.4							
110	64.7	41.8	36.6	32.9	12.4	23.7							
100						13.0							

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO												60 W	20 DEC 1961
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q ₀ KP	0	F0	F1	F1	F1	F1	F1	S1	1	1	1	1	
HMIN	250	242	248	219	210	247	228	100	109	109	109	108	
SCAT	36.5	35.4	42.7	26.4	32.9	34.6	36.1	31.3	31.8	31.2	30.0	29.3	
HMAXF	327	316	339	270	274	317	308	250	226	242	244	236	
SHMAX	85	104	118	66	80	81	95	183	217	366	415	375	
KM													
340				197									
330	167			194									
320	165	214	187			170							
310	157	213	172			168	187						
300	143	204	156			160	185						
290	127	185	136			144	176						
280	104	163	112		193	123	160						
270	70.7	132	82.3	196	192	95.2	136						
260	38.0	86.5	47.1	189	185	61.5	108						
250	3.1	37.7	17.2	168	168	24.0	77.8	326		588	701		
240				131	141	46.4	318	294	401	565	661	588	
230				61.7	90.7	16.8	294	252	397	512	586	552	
220				12.4	43.2		203	375	430	468	462		
210					3.1		150	332	342	357	397		
200							108	265	269	279	324		
190							78.4	187	227	235	274		
180							57.9	134	197	204	243		
170							45.0	104	172	172	217		
160							36.7	87.6	147	142	185		
150							31.6	77.8	124	124	147		
140							28.7	68.6	113	115	127		
130							27.6	59.0	93.8	111	121		
120							25.8	32.9	41.8	49.2	86.3		
110							13.0						
100													

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO							60 W			20 DEC 1961		
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₀ KP	1	1	1	1	1	1	51		0	0	0	2
HMIN	109	109	108	109	109	108	100	207	219	211	253	224
SCAT	36.7	28.9	37.9	39.5	31.9	27.3	32.0	20.9	31.7	43.4	45.3	38.1
HMAXF	238	242	231	253	254	229	247	241	279	284	347	302
SHMAX	375	386	346	413	385	237	245	93	50	92	94	107
KM												
350											153	
340											152	
330											148	
320											139	
310											127	214
300											111	214
290										183	89.9	209
280									121	182	67.1	197
270									119	178	45.5	176
260									110	168	24.3	144
250		564		541	591		471	374	97.2	153		101
240	567	564	491	528	566		466	374	77.9	125		62.1
230	561	541	491	497	510	467	440	346	43.5	80.6		28.0
220	535	483	481	449	426	454	390	273	12.4	38.8		
210	489	403	453	387	343	409	321	73.4				
200	410	337	409	326	275	329	233					
190	314	293	349	277	226	247	152					
180	262	266	292	243	194	178	96.9					
170	235	247	250	216	171	133	65.6					
160	204	227	223	193	150	107	48.0					
150	173	203	198	172	131	90.3	37.6					
140	139	177	171	156	115	78.5	31.6					
130	126	147	147	130	100	72.9	28.6					
120	121	130	132	114	90.1	57.2	27.2					
110	36.1	25.1	73.8	37.2	33.3	20.5	25.0					
100							13.0					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

21 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q ₁ KP	F2	F2	1	1	F1	F1	F1	S1	0	0	0	0
HMIN	227	242	260	231	202	197	219	110	109	109	108	109
SCAT	34.0	34.5	37.2	29.3	23.0	45.3	41.8	29.3	33.7	37.2	28.4	35.2
HMAXF	307	315	331	294	244	300	320	255	235	250	239	236
SHMAX	101	99	98	103	64	66	93	127	253	423	409	393
KM												
340			197									
330			197									
320		213	192					151				
310	210	212	181			98.5	149					
300	207	203	163	266		98.5	143					
290	196	185	140	265		97.2	132					
280	177	159	111	251		93.6	118					
270	150	124	72.9	220		87.1	101					
260	115	76.6	12.4	166		79.4	80.3	238		619		
250	72.6	35.8		99.6	236	69.8	61.6	237		619		
240	40.5			39.7	235	59.5	42.4	222	422	607	747	602
230	16.2				215	48.7	25.8	198	420	573	729	597
220					162	37.7	3.1	159	402	517	668	571
210					49.0	26.5		115	365	431	549	520
200						12.4		80.3	307	345	396	438
190								56.3	243	282	293	341
180								40.4	187	236	240	277
170								33.0	149	202	205	242
160								30.3	124	177	171	218
150								28.7	105	154	140	192
140								27.4	93.4	134	126	161
130								25.8	68.4	125	119	140
120								23.4	53.2	94.4	115	132
110								12.4	30.3	33.3	73.8	38.1

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

21 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	0	0	1	1	1	1	S1	1	1	1	1	2
HMIN	108	108	105	109	104	111	100	198	199	227	218	201
SCAT	24.9	30.7	45.1	32.9	29.0	28.2	31.6	36.1	45.9	32.9	41.5	34.5
HMAXF	217	222	240	247	248	242	245	251	272	281	303	271
SHMAX	307	302	348	336	322	275	253	89	60	47	82	72
KM												
310												148
300												148
290											120	145
280												
270												
260												
250				409	469	529	541	517	214	108	91.1	82.8
240				409	464	520	540	513	210	101	61.5	59.3
230				583	466	388	391	410	457	435	175	62.2
220				570	449	361	338	325	367	334	136	35.8
210				517	404	329	289	257	259	238	63.5	4.7
200				399	348	299	249	211	181	151		
190				240	499	272	218	176	129	94.3		
180				247	260	250	191	146	102	64.5		
170				226	230	231	166	119	83.1	46.1		
160				195	199	206	138	103	70.8	36.4		
150				163	166	181	125	96.0	65.4	30.8		
140				137	142	141	118	92.3	63.3	27.1		
130				131	132	126	113	88.3	55.1	25.5		
120				73.8	63.3	83.1	39.4	60.5		24.0		
110										13.0		
100												

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

22 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q ₁ KP	2	2	0	0	0	A1	1	S1	3	A3	A3	A2
HMIN	217	219	227	214	210	218	207	100	110	108	108	108
SCAT	31.5	36.9	41.9	37.5	52.1	41.9	40.2	35.8	20.6	24.8	31.5	34.4
HMAXF	282	286	320	285	301	312	294	255	235	224	224	244
SHMAX	77	74	106	89	111	106	101	210	291	294	327	424
KM												
320			178			184						
310			176			178	184					
300			169			178	181	187				
290	188	163	156	186	176	172	186					
280	188	162	139	185	171	158	181					
270	181	156	119	178	163	135	170					
260	165	144	94.4	165	151	109	152	338				
250	140	122	70.6	143	130	82.6	126	337				
240	98.3	85.0	40.8	111	101	56.4	96.0	323	714			619
230	49.0	44.0	16.2	72.4	67.5	33.4	62.0	296	701	616	536	594
220	19.9	12.4		32.1	35.7	12.4	37.1	255	614	611	534	545
210							16.0	205	431	566	509	473
200								156	276	462	457	390
190								115	187	317	376	321
180								86.0	147	226	306	274
170								66.9	119	186	252	241
160								54.2	97.2	152	221	214
150								46.1	83.7	124	190	190
140								40.2	75.7	107	157	158
130								36.0	69.9	101	130	135
120								33.7	60.3	92.4	120	127
110								31.1	12.4	38.1	66.6	54.4
100								19.7				

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO

60 W

22 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	2	2	1	1	1	1	S1	1	2	2	F2	3
HMIN	108	109	108	109	108	108	100	191	208	221	229	199
SCAT	40.0	41.4	40.3	42.9	30.4	29.6	22.7	22.8	44.8	27.0	33.2	31.1
HMAXF	230	264	240	237	238	252	244	231	218	279	296	270
SHMAX	356	506	367	323	329	326	256	86	74	62	69	77
KM												
300											124	156
290											123	155
280												
270			556								119	173
260			555			541					112	168
250			540			590	675				102	151
240	510	507	501	430	562	568	670	310	70.9	71.1	43.5	132
230	510	463	493	427	552	511	613	310	52.6	34.9	12.4	107
220	501	433	468	413	514	423	495	293	33.0			
210	477	410	432	387	440	319	342	246	12.4			
200	438	375	383	350	345	233	173	138				
190	370	334	325	306	260	174	89.1					
180	302	293	270	259	206	137	54.2					
170	264	256	235	222	176	113	39.4					
160	242	228	204	193	152	95.0	31.8					
150	205	210	176	166	133	83.5	26.8					
140	159	185	148	142	118	73.4	23.9					
130	140	145	135	123	102	65.1	22.4					
120	132	131	127	114	94.6	61.0	21.6					
110	49.1	33.0	38.1	37.2	37.6	20.5	19.9					
100							13.0					

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO												60 W	23 DEC 1961			
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100				
Q ₁ KP	3	3	A3	F3	F3	F2	F2	S2	A3	A3	A3	A1				
HMIN	217	248	260	229	237	218	259	100	109		110					
SCAT	28.3	39.0	38.1	28.8	35.4	47.8	33.1	34.7	34.0		35.1					
HMAXF	278	339	343	289	309	314	328	262	260		267					
SHMAX	66	88	85	77	79	125	70	176	325		669					
KM																
350			163													
340		156	163													
330		154	158				155									
320		147	148			205	153									
310		135	133		170	205	144									
300		118	112		167	201	128									
290		97.1	83.7	196	157	192	104									
280	170	73.6	54.1	191	140	179	74.9									
270	166	51.8	28.6	174	115	161	44.7	271	512		1121					
260	153	32.9	1.9	144	80.2	135	12.4	271	512		1109					
250	128	12.4		108	42.9	100		263	501		1055					
240	93.6			55.2	16.2	62.4		243	467		955					
230	51.6			12.4		34.6		215	410		776					
220	19.3					12.4		180	336		551					
210								144	265		386					
200								110	208		297					
190								84.4	169		253					
180								66.0	137		221					
170								52.7	111		197					
160								43.7	90.4		177					
150								37.2	79.1		138					
140								33.4	73.5		124					
130								31.1	67.0		120					
120								29.8	56.0		101					
110								26.9	22.0		12.4					
100								15.6								

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO												60 W	23 DEC 1961			
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300				
Q ₁ KP	1	A1	A1	A1	A1	A4	A4	A4	A3	3	3	2				
HMIN	104	108	109	107	109	109		199	210	218	220	240				
SCAT	57.8	28.4	36.8	44.8	34.9	43.8		29.8	26.3	34.8	40.3	41.3				
HMAXF	261	239	241	248	239	258		275	256	284	309	324				
SHMAX	642	442	442	393	335	339		196	97	98	127	132				
KM																
330															244	
320															244	
310															224	237
300															220	224
290															225	210
280															224	176
270	754														215	172
260	754														193	138
250	747														167	110
240	729	723	663	508	515	451									143	83.0
230	700	705	647	492	505	423									122	73.1
220	658	642	606	462	475	383									113	3.9
210	593	530	539	419	423	332									132	17.2
200	505	414	444	356	352	275									12.4	
190	412	332	349	298	281	222										
180	329	284	285	254	228	173										
170	273	257	248	224	191	132										
160	242	238	222	198	164	104										
150	215	219	198	170	142	86.3										
140	186	178	171	140	124	75.9										
130	159	148	143	127	110	69.1										
120	140	135	136	112	102	65.8										
110	60.4	38.7	27.3	26.0	30.3	22.0										

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO												60 W	24 DEC 1961			
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100				
Q ₁ KP	2	2	2	2	F2	F2	F2	S2	3	3	3	3				
HMIN	239	240	229	210	217	227	206	110	110	108	109	108				
SCAT	37.1	36.0	36.9	25.9	42.7	31.5	44.9	33.3	35.9	41.7	34.3	38.2				
HMAXF	322	319	313	262	302	299	315	267	258	254	250	249				
SHMAX	127	142	135	95	131	111	153	170	352	572	515	464				
KM																
330	246						235									
320	246	295	258													
310	240	290	257		235		234									
300	225	274	249		235	240	228									
290	201	247	232		231	234	215									
280	170	209	206		220	216	198									
270	131	152	173	295	203	191	176	278								
260	84.5	85.1	131	294	179	157	149	274	531	878	834					
250	43.5	40.6	86.0	279	146	117	121	258	525	876	834	648				
240	12.4	3.7	42.6	241	106	69.5	90.1	232	497	854	815	639				
230			12.4	159	58.7	24.0	58.5	201	450	813	763	607				
220				56.7	21.4		35.8	164	383	732	668	553				
210				4			18.1	125	314	611	538	484				
200								91.2	250	468	401	402				
190								65.6	199	329	305	330				
180								47.4	160	246	253	283				
170								36.1	132	203	216	247				
160								31.3	112	174	182	210				
150								28.6	97.5	149	152	176				
140								27.1	88.4	131	129	139				
130								26.3	72.0	120	120	130				
120								24.5	59.2	98.3	115	126				
110								13.0	12.4	35.7	41.8	54.4				

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO								60 W		24 DEC 1961				
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300		
Q ₁ KP	3	A3	2	2	2	2	S2	A2	A0	A0	0	0		
HMIN	109	109	109	108	109	108		199	219	218	218	213		
SCAT	32.4	37.4	40.2	37.7	23.5	30.7		39.0	43.3	39.6	49.3	43.4		
HMAXF	241	238	252	268	235	241		270	303	299	319	296		
SHMAX	463	407	447	560	375	301		138	88	99	125	100		
KM														
320											194			
310										153	192			
300										153	193	187		
290										150	190	177		
280										143	182	163		
270					744					167	142	170		
260				594	736			270		131	167	142		
250	691			593	703		539	266	116	143	115	154		
240	691	588		580	646	779	539	253	94.6	107	87.6	127		
230	671	581	549	564	769	520		231	71.5	71.0	59.6	90.4		
220	620	554	499	480	695	473		203	42.6	38.9	34.5	51.3		
210	536	506	433	394	546	395		165	12.4	12.4	12.4	24.5		
200	447	430	364	330	376	309		110						
190	370	347	310	286	272	227		38.4						
180	311	293	270	255	217	169								
170	271	259	240	228	182	133								
160	241	232	215	203	155	109								
150	214	210	191	178	135	91.8								
140	188	186	153	150	122	80.4								
130	160	151	139	129	116	72.0								
120	144	137	106	109	110	68.4								
110	59.8	24.1	12.4	20.6	27.3	20.5								

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO											
60 W						25 DEC 1961					
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1100
Q _z KP	0	0	0	0	0	1	1	51	0	0	0
HMIN	218	217	231	204	224	220	217	110	109	107	105
SCAT	31.9	42.2	33.5	27.0	31.9	32.3	40.7	26.0	28.6	29.3	40.7
HMAXF	288	316	311	263	297	284	316	250	239	238	249
SHMAX	103	117	113	95	99	84	103	155	301	359	340
KM											
320		193	240				174				
310		192	239				173				
300		186	233		222		167				
290	236	174	216		219	199	156				
280	232	158	188		206	198	140				
270	217	138	152	257	182	190	119				
260	190	114	101	256	148	171	96.1	320			
250	148	84.1	58.6	241	107	140	70.8	320			648
240	97.8	57.0	28.4	210	63.3	101	48.0	308	567	675	640
230	53.7	34.0		160	27.6	50.1	29.2	272	553	662	619
220	16.8	15.8		92.0		3.1	12.4	215	504	613	613
210				35.0				153	421	513	575
200								105	319	379	500
190								73.5	235	267	373
180								54.3	177	207	278
170								42.0	137	164	232
160								34.7	108	125	197
150								30.6	90.5	108	155
140								28.5	82.0	103	129
130								27.7	71.7	100	120
120								26.2	59.2	93.4	115
110								13.0	30.3	33.8	75.2

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO											
60 W						25 DEC 1961					
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2300
Q _z KP	1	1	0	A0	A0	A1	A1	A1	0	A0	A0
HMIN	104	108	108	108	110	109		200	218		209
SCAT	32.4	40.6	77.3	43.3	33.4	30.5		34.2	52.1		42.6
HMAXF	229	230	290	283	258	248		260	302		289
SHMAX	401	364	612	640	495	406		96	83		73
KM											
330											163
320											163
310									135		157
300									135		146
290			515	815					133		135
280			512	815					129		131
270			506	798				229	123		128
260			495	760	815			229	113		89.0
250			480	702	804	808		223	97.3		106
240		510	459	613	757	793		208	75.5		86.6
230	651	510	437	511	673	735		182	47.0		58.3
220	639	502	411	413	547	623		138	16.5		31.6
210	596	478	381	332	410	463		73.4			6.4
200	522	438	349	280	301	290		12.4			
190	417	386	318	246	239	194					
180	327	323	288	221	203	149					
170	274	276	260	200	175	125					
160	238	247	237	181	152	104					
150	206	217	215	158	131	88.9					
140	173	174	186	113	116	80.0					
130	147	137	141	101	110	76.0					
120	139	127	127	96.3	90.0	54.9					
110	99.7	79.9	79.8	71.2	12.4	12.4					

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO											
60 W						26 DEC 1961					
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1100
Q _z KP	F1	1	F1	F1	F1	F1	F1	51	1	A1	A1
HMIN	257	227	221		209	220	110	109	108		109
SCAT	41.4	34.4	30.3		43.1	45.6	27.9	32.3	35.7		39.0
HMAXF	350	308	285		293	312	236	226	247		253
SHMAX	125	111	93		86	103	124	240	412		575
KM											
360	212										
350	212										
340	208										
330	199										
320	183						163				
310	163	226					163				
300	141	222				149	160				
290	114	209	232			149	154				
280	72.9	187	231			146	142				
270	40.3	156	218			138	129				
260	16.0	119	193			127	114				
250		81.6	152			112	94.2				
240		46.5	94.2			94.0	67.8	247			
230		19.3	41.0			71.6	38.6	245	446	574	
220						44.9	3.9	227	442	520	
210						12.4		195	418	446	
200								152	373	369	
190								110	300	302	
180								75.7	217	250	
170								52.0	155	212	
160								38.9	119	180	
150								32.5	98.3	150	
140								30.0	83.7	131	
130								28.9	63.9	105	
120								26.0	57.6	92.7	
110								13.0	32.6	49.1	

ELECTRON DENSITY

RAMEY AFB, PUERTO RICO											
60 W						26 DEC 1961					
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2300
Q _z KP	A1	A1	A1	A1	A1	1	A1	A1	3	3	F3
HMIN				109	109	107		200	199	210	256
SCAT				37.3	36.7	36.0		33.3	39.1	45.0	35.1
HMAXF				257	255	249		267	271	307	331
SHMAX				581	417	337		142	79	109	105
KM											
350											246
340											214
330											213
320											208
310											176
300											175
290											170
280											160
270											146
260											65.4
250				936	619			310	162	146	37.2
240				929	616	564		306	159	128	27.3
230				889	594	556		289	151	106	3.9
220				817	547	527		257	137	80.3	
210				683	486	475		218	117	52.0	
200				512	409	395		164	83.7	28.2	
190				362	334	297		98.2	44.9	1.9	
180				279	267	211		12.4	12.4		
170				233	210	158					
160				203	168	124					
150				185	133	101					
140				170	111	84.1					
130				136	105	72.5					
120				113	101	67.5					
110				107	93.3	65.0					
				30.3	28.5	38.4					

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO 60 W 27 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	3	3	F2	2	A2	F2	F2	S2	A2	A2	A2	A1
HMIN	228	236	248	214	221	207	225	110	109			
SCAT	33.8	31.3	30.0	29.1	36.5	37.3	61.1	27.2	30.9			
HMAXF	312	303	309	281	295	297	350	242	239			
SHMAX	131	125	99	115	86	82	134	151	255			
KM												
350							162					
340							161					
330							158					
320	268						152					
310	267	296	246				144					
300	260	295	241		179	148	135					
290	239	283	221	283	178	147	125					
280	211	255	190	283	172	141	111					
270	173	213	146	272	158	129	93.8					
260	125	152	75.8	245	138	114	73.9					
250	73.1	83.0	19.3	204	107	94.5	54.8	300				
240	37.9	27.3		147	69.6	73.7	36.8	300	448			
230	12.4			77.4	36.4	52.2	19.7	286	440			
220				32.1		32.8		252	407			
210						15.3		207	353			
200								158	287			
190								112	220			
180								76.8	168			
170								53.9	128			
160								40.4	102			
150								32.6	84.2			
140								29.4	76.1			
130								28.0	65.6			
120								26.7	50.3			
110								15.6	12.4			

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO 60 W 27 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	A1	A1	A2	A2	A2	1	S1	A1	A2	A2	A2	A2
HMIN			109	109	114	109		200	210	197	196	248
SCAT			62.8	29.4	45.2	33.0		26.0	30.8	45.2	65.1	39.5
HMAXF			271	248	266	268		250	263	305	337	328
SHMAX			596	417	458	414		116	82	86	133	98
KM												
340											149	
330											149	184
320											147	182
310										127	143	174
300										126	137	160
290										123	129	141
280			621							116	120	114
270			621		588	648				225	107	109 79.7
260			617		586	638				224	96.3	95.1 47.8
250			604	678	571	598			342	214	83.4	80.6 16.8
240			583	666	540	529			329	193	69.4	65.3
230			553	616	497	442			291	150	54.8	49.9
220			518	525	442	351			228	77.2	40.9	36.3
210			475	416	381	281			135		27.6	24.9
200			420	323	316	226			12.4		12.4	12.4
190			356	265	260	182						
180			297	227	216	148						
170			252	200	182	122						
160			220	176	153	102						
150			193	150	130	86.6						
140			172	132	114	76.5						
130			155	123	107	70.7						
120			138	117	50.2	64.4						
110			33.0	30.3		12.4						

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO 60 W 28 DEC 1961

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q,KP	A2	A2	A2	A2	2	4	4	S4	4	A4	A4	A4
HMIN	230	229	269	248	208	238	247	110	110			
SCAT	33.2	29.4	30.6	27.1	39.2	53.6	43.9	36.1	34.2			
HMAXF	304	300	339	302	278	347	345	276	260			
SHMAX	94	92	105	97	97	104	86	184	422			
KM												
350						142	142					
340			237			141	141					
330			233			138	138					
320			215			133	130					
310	206	214	188	270		125	119					
300	205	214	153	270		114	103					
290	196	207	110	256		101	83.2					
280	178	189	59.1	224	205	86.5	62.9	281				
270	152	160	12.4	172	203	70.7	44.0	280				
260	117	124		98.3	194	54.4	28.0	268	740			
250	69.1	81.0		28.5	179	36.9	12.4	246	725			
240	34.3	41.5			154	12.4		213	678			
230		12.4			112			175	598			
220					56.9			139	472			
210					16.8			107	336			
200								82.1	239			
190								63.8	176			
180								50.7	137			
170								41.9	111			
160								35.7	93.5			
150								31.9	83.7			
140								29.4	79.1			
130								28.0	61.7			
120								27.1	55.6			
110								15.6	12.4			

ELECTRON DENSITY

RAMEY AF8, PUERTO RICO 60 W 28 DEC 1961

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q,KP	A4	A4	A3	A3	A3	A4	A4	A4	A4	A4	4	3
HMIN								198	199	247	228	223
SCAT								40.7	46.8	33.9	45.9	38.3
HMAXF								297	287	324	329	301
SHMAX								160	113	94	137	118
KM												
330										196	214	
320										195	212	
310										188	205	234
300										281	172	192 234
290										279	194	148 174 230
280										269	193	118 151 217
270										250	187	85.0 125 197
260										220	178	46.5 96.8 166
250										181	163	19.3 68.3 126
240										140	137	38.9 78.3
230										96.9	102	12.4 34.1
220										58.8	71.2	
210										33.1	41.9	
200										12.4	12.4	

ELECTRON DENSITY

RAYE AFB, PUERTO RICO										60 W		29 DEC 1961	
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	
Q ₁ KP	3		1	1	1	2	2	52	2	2	2		
HM1N	244	208	248	240	235	229	229	110	110	108	109	108	
SCAT	24.3	31.4	31.7	31.1	39.5	40.1	47.7	29.4	25.0	34.7	28.1	29.3	
HMAXF	297	269	338	319	332	310	322	254	230	246	235	225	
SHMAX	92	95	99	89	99	92	87	134	256	429	398	361	
KM													
340			189		170								
330			186		170		136						
320			173	189	166	165	136						
310			155	185	157	165	134						
300	271		132	171	142	162	129						
290	265		107	151	122	153	121						
280	237		82.2	123	98.6	141	110						
270	186	245	55.1	92.7	75.7	126	95.1						
260	127	240	32.6	58.5	53.1	107	79.1	242					
250	47.4	225	12.4	31.8	34.8	81.9	60.8	241		675			
240		190			19.0	51.5	39.1	228	541	670	666		
230		124						202	541	639	661	621	
220		59.8						169	518	579	615	618	
210		16.8						132	451	490	537	583	
200								96.8	347	394	438	512	
190								69.3	242	311	351	408	
180								50.6	167	250	287	319	
170								38.7	126	208	252	266	
160								31.8	104	175	223	233	
150								27.8	92.7	143	184	201	
140								25.5	75.5	127	150	176	
130								24.4	66.4	102	129	143	
120								23.6	56.6	89.6	112	123	
110								15.6	12.4	51.5	39.4	61.5	

ELECTRON DENSITY

KAMEY	AF8, PUERTO RICO						60 W			29 DEC 1961		
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
Q ₁ KP	2	2	1	1	1			A4	A3	A3	A3	4
HM1N	108	107	110	110	109	A4		200	216	209	220	209
SCAT	42.4	35.2	42.6	43.2	35.6			37.0	47.4	38.1	47.6	45.1
HMAXF	239	244	277	276	257			293	327	310	302	294
SHMAX	417	455	562	651	520			131	117	119	138	147
KM												
330									170			
320									169			
310									164	214	245	
300								225	157	211	245	257
290								224	145	200	242	256
280			678	890				218	130	182	233	250
270			674	886				205	112	154	219	238
260			651	859	878			184	93.1	122	197	219
250			607	812	870			160	73.0	88.3	162	193
240	591	614	550	733	830			132	49.9	60.9	110	153
230	585	591	481	618	756			102	31.3	40.7	55.5	106
220	562	540	405	479	634			73.2	15.1	25.5	1.7	56.4
210	525	478	340	371	474			45.4		3.1		12.4
200	462	407	295	301	328			.4				
190	380	344	264	253	244							
180	305	302	240	221	200							
170	259	275	219	196	164							
160	222	251	179	175	136							
150	169	224	154	148	115							
140	147	196	144	125	103							
130	137	165	138	117	97.4							
120	132	134	120	108	93.4							
110	85.0	113	12.4	12.4	24.1							

ELECTRON DENSITY

RAMEY	AF8, PUERTO RICO						60 W	30 DEC 1961				
TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
Q, KP	4	F4	2	2	2	A3	3	S3	A3	A3	A3	A4
HMIN	208	247	255	247	212	190	220					
SCAT	47.6	36.1	35.6	34.2	22.2	33.2	61.0					
HMAXF	321	333	328	315	257	238	317					
SHMAX	154	123	107	128	97	46	82					
KM												
340		236										
330	215	236	231									
320	215	228	228	295			113					
310	213	211	214	293			113					
300	206	186	194	281			111					
290	194	154	160	258			108					
280	178	118	112	218			103					
270	161	77.9	61.7	147			96.7					
260	140	41.8	26.2	75.9	342		87.9					
250	118	16.2		24.0	332		76.3					
240	90.7				290	123	60.1					
230	59.4				199	122	37.4					
220	34.1				67.8	114	3.9					
210	12.4					101						
200						73.2						
190						12.4						

ELECTRON DENSITY

RAYEY AF8, PUERTO RICO								60 W				30 DEC 1961			
TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300			
Q,KP	A4	A4	A2	A2	A2	A3	A3	A3	A2	A2	2	F2			
HM1N		110			110			199	217	198	236	216			
SCAT		34.3			42.2			53.9	38.5	69.7	50.1	40.5			
HMAXF		233			269			294	293	334	342	284			
SHMAX		364			557			133	101	150	120	111			
KM															
350											177				
340										163	177				
330										163	174				
320										162	168				
310										158	158				
300								204	204	153	145				
290								204	204	147	126	233			
280								201	198	139	103	232			
270					768			194	185	128	80.6	226			
260					75.9			183	165	116	59.0	211			
250					729			170	132	101	36.3	191			
240		541			676			149	90.9	84.7	18.4	150			
230		540			595			120	48.5	67.6		90.8			
220		520			497			79.9	19.3	50.4		28.7			
210		478			394			41.8		32.5					
200		413			317			12.4		12.4					
190		365			259										
180		291			217										
170		255			186										
160		231			160										
150		208			137										
140		178			118										
130		141			102										
120		114			90.9										
110		12.4			12.4										

ELECTRON DENSITY

[illegible]

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 0000 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100

COUNT 28 28 29 28 28 26 27 24 26 19 22 20
 KP 1.7 1.7 1.4 1.4 1.4 1.5 1.4 1.5 1.3 1.1 1.2 1.4
 HMIN 226 230 234 221 214 217 221 104 109 109 109 109
 RATIO 7.1 6.9 7.3 7.6 7.0 6.5 5.9 5.9 6.0 5.8 5.7 5.5
 SCAT 35.1 35.8 34.5 35.1 41.6 41.5 43.2 32.7 33.1 32.2 33.3 36.7
 NMAX 196 205 216 234 199 147 147 281 529 663 767 764
 HMAXF 304 307 310 292 298 304 311 250 242 243 244 246
 SHMAX 94 98 103 104 101 83 85 165 301 390 461 494
 SHINF 647 676 713 763 662 498 499 958 1792 2260 2624 2648

KM 950 12.8 13.6 14.7 14.4 12.5 9.7 9.9 14.1 25.5 31.8 37.4 37.5
 900 16.4 17.4 18.9 18.4 16.0 12.4 12.8 18.0 32.7 40.8 48.0 48.1
 850 21.0 22.3 24.2 23.6 20.5 15.9 16.4 23.2 42.0 52.4 61.5 61.8
 800 27.0 28.6 31.0 30.3 26.3 20.4 21.0 29.7 53.8 67.2 79.0 79.3
 750 34.6 36.6 39.7 38.8 33.7 26.2 26.9 38.1 69.0 86.2 101 102
 700 44.2 46.9 50.8 49.7 43.2 33.5 34.3 48.8 88.5 110 130 130
 650 56.4 59.8 64.7 63.4 55.1 42.7 43.8 62.4 113 141 166 167
 600 71.7 75.9 82.1 80.7 70.0 54.3 55.6 79.7 145 181 212 213
 550 90.4 95.8 103 102 88.4 68.4 70.1 101 184 230 270 270
 500 113 119 129 128 110 85.3 87.2 128 233 291 341 341
 450 138 146 157 157 135 104 106 160 291 364 427 427

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106 110
 450 371 381 340 414 417 370 236 151 101 112 129 134

AVERAGE ELECTRON DENSITY

60 W

KP BELOW 4.5

RAMEY AF8, PUERTO RICO

DEC 1961

TIME 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

COUNT 20 22 20 21 23 18 9 25 26 27 27 27
 KP 1.4 1.5 1.0 1.1 1.2 1.4 1.0 1.6 1.5 1.5 1.4 1.7
 HMIN 108 108 109 109 110 109 100 200 208 223 224 221
 RATIO 5.4 5.1 4.9 4.9 5.5 6.1 6.8 8.1 6.2 6.5 6.0 6.8
 SCAT 36.2 36.1 41.7 39.4 35.5 32.7 29.8 34.7 46.0 40.5 42.3 36.9
 NMAX 680 679 599 694 719 645 433 252 150 158 175 194
 HMAXF 239 245 249 259 253 250 240 263 294 306 315 298
 SHMAX 447 470 442 498 451 360 209 106 85 84 100 96
 SHINF 2365 2386 2130 2456 2478 2181 1431 817 509 529 595 643

KM 950 32.4 33.5 29.9 36.7 36.7 32.5 20.6 13.4 9.3 10.4 12.1 12.4
 900 41.6 43.0 38.4 47.2 47.1 41.8 26.4 17.2 11.9 13.4 15.6 15.9
 850 53.4 55.1 49.3 60.5 60.5 53.6 33.9 22.1 15.2 17.1 20.0 20.4
 800 68.5 70.7 63.2 77.7 77.6 68.8 43.5 28.4 19.5 22.0 25.6 26.1
 750 87.8 90.7 81.1 99.6 99.5 88.2 55.8 36.4 25.0 28.2 32.8 33.5
 700 113 116 104 128 128 113 71.6 46.6 32.0 36.0 41.9 42.8
 650 144 149 133 163 163 144 91.6 59.6 40.9 45.9 53.4 54.6
 600 184 190 170 208 208 184 117 75.9 52.0 58.3 67.8 69.4
 550 234 241 216 264 264 234 149 96.4 65.8 73.6 85.4 87.7
 500 296 305 272 333 334 296 188 121 82.3 91.7 106

TABLES OF IONOSPHERIC DATA

SEPTEMBER 1961 • SEPTEMBER 1954

[illegible]

TABLE 2

[illegible]

TABLE 3

ANCHORAGE, ALASKA (61-2N, 149-5W)

TIME 1500

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16F2	U	55	31	59	28	33	395	45	48	50	51	55	54	56	55	55	55	52	53	53	51	485	48	40	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16E1	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46	48	50	48	48	47	49	49	48	48	50	49	48	42	36	32
16F2	U	31	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	U
	MEQ	24	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	CNT	35	27	55	24	30	26	28	28	28	30	30	31	31	31	31	30	29	31	29	27	28	27	28	U
	LO	32	29	24	24	29	36	42	46	46															

1048 • J. Neurosci., August 14, 2008 • 28(32):1043–1051

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

AUGUST, 1961

AUGUST, 1961

TABLE 6

MOAK, ALASKA (51.9N, 176.6W)

AGASS, ALASKA (51+SN, 176+SW)																								TIME 18000			
HOUR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	MOD	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	LOW	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	135	125		
	UO	24	24	25	25	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23	24	23		
f6F2	MED	315	315	311	305	311	305	295	285	275	265	255	245	235	225	215	205	195	185	175	165	155	145	1			

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

OCT08ER. 1960

TABLE 5

ANCHORAGE, ALASKA (61.2N, 149.9W)																								TIME 1500.0	
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	MED	30	325	295	33	30	28	32	44	57	665	72	80	855	88	76	70	72	80	58	46	415	335	33	315
	LO	15	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
	LO	24	28	27	28	28	21	29	36	49	52	60	60	63	58	57	57	56	56	42	30	35	26	26	26
16 F2	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
16 F	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
160000F2	MED	270	255	255	250	250	250	280	305	310	305	300	3025	300	295	295	300	300	300	300	300	290	285	2725	U
	CNT	11	9	9	9	9	13	4	9	13	12	15	18	30	30	32	33	28	23	24	313	388	300	316	285
	LO	11	9	9	9	9	13	4	9	13	12	15	18	30	30	32	33	28	23	24	313	388	300	316	285
	LO	255	245	250	250	250	250	250	270	300	300	300	285	280	285	290	280	295	290	290	285	285	290	280	275
16 F1	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	CNT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
16 E	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	CNT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
16 E	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	CNT	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
	LO	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
16 E	MED	135	17	18	18	14	11	15	14	16	15	14	18	18	20	22	23	29	25	26	27	23	27	23	22
	CNT	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
	LO	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
	LO	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

OCTOBER, 1960

TABLE 9

POINT BARROW. ALASKA (71-3M-156-8W)

		POINT BARROW, ALASKA (71.3N, 156.5W)																TIME 1500-0							
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	465	48	42	46	435	42	475	50	555	565	56	55	59	615	645	68	705	60	60	59	44	44	44	43
	QNT	26	26	61	55	52	51	47	50	58	60	65	68	70	70	74	78	78	76	76	71	56	50	48	48
	QNT	26	26	61	55	52	51	47	50	58	60	65	68	70	70	74	78	78	76	76	71	56	50	48	48
	LQ	43	44	36	42	38	37	44	45	44	46	48	52	54	55	58	60	58	55	50	44	40	40	40	40
hF2	MED																								
	QNT																								
	QNT																								
	LQ																								
hF	MED																								
	QNT																								
	QNT																								
	LQ																								
f6F1	MED	275	265	265	285	255	255	265	265	265	2675	2725	275	2725	265	2675	265	270	280	290	295	U	U	U	U
	QNT	265	265	275	272	245	255	275	275	260	260	260	265	260	260	260	265	260	260	260	265	260	260	265	270
	QNT	265	265	275	272	245	255	275	275	260	260	260	265	260	260	260	265	260	260	260	265	260	260	265	270
	LQ	270	250	260	260	250	250	255	260	230	225	240	245	255	255	255	255	260	270	285	280	280	270	265	260
f6E	MED																								
	QNT																								
	QNT																								
	LQ																								
h'E	MED																								
	QNT																								
	QNT																								
	LQ																								
f6Eh	MED	55	50	415	45	42	26	23																	
	QNT	29	29	28	29	28	27	27	26	27	31	26	23	25	28	28	28	29	27	27	28	28	30	28	29
	QNT	29	29	28	29	28	27	27	26	27	31	26	23	25	28	28	28	29	27	27	28	28	30	28	29
	LQ																								

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SEPTEMBER, 1960

TABLE 7

Structure	ΔH_{cal} (kJ/mol)	ΔH_{cal} (kcal/mol)
1	116.48	120.6E

BAGUIO, P. I. (16-8N, 120-4E)													TIME 120-G												
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16P2	MED CND LO	109 102 91 64 59 52	110 110 112 74 54 52	112 114 112 74 54 52	114 112 74 54 52	116 114 112 74 54 52	118 116 114 112 74 54 52	120 120 120 120 120 120	122 122 122 122 122 122	124 124 124 124 124 124	126 126 126 126 126 126	128 128 128 128 128 128	130 130 130 130 130 130	132 132 132 132 132 132	134 134 134 134 134 134	136 136 136 136 136 136	138 138 138 138 138 138	140 140 140 140 140 140	142 142 142 142 142 142	144 144 144 144 144 144	146 146 146 146 146 146	148 148 148 148 148 148	150 150 150 150 150 150	152 152 152 152 152 152	154 154 154 154 154 154
17F2	MED CND LO	99 90 80 56 41 39 61	95 109 121 118 116 110	116 118 116 110 116 110	118 116 110 116 110 116	120 120 120 120 120 120	122 122 122 122 122 122	124 124 124 124 124 124	126 126 126 126 126 126	128 128 128 128 128 128	130 130 130 130 130 130	132 132 132 132 132 132	134 134 134 134 134 134	136 136 136 136 136 136	138 138 138 138 138 138	140 140 140 140 140 140	142 142 142 142 142 142	144 144 144 144 144 144	146 146 146 146 146 146	148 148 148 148 148 148	150 150 150 150 150 150	152 152 152 152 152 152	154 154 154 154 154 154	156 156 156 156 156 156	
17F2	MED CND LO	99 90 80 56 41 39 61	95 109 121 118 116 110	116 118 116 110 116 110	118 116 110 116 110 116	120 120 120 120 120 120	122 122 122 122 122 122	124 124 124 124 124 124	126 126 126 126 126 126	128 128 128 128 128 128	130 130 130 130 130 130	132 132 132 132 132 132	134 134 134 134 134 134	136 136 136 136 136 136	138 138 138 138 138 138	140 140 140 140 140 140	142 142 142 142 142 142	144 144 144 144 144 144	146 146 146 146 146 146	148 148 148 148 148 148	150 150 150 150 150 150	152 152 152 152 152 152	154 154 154 154 154 154	156 156 156 156 156 156	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND LO	250 245 235 225 215 205 195	245 240 230 220 210 200 190	240 230 220 210 200 190	235 225 215 205 195 185	230 220 210 200 190 180	225 215 205 195 185 175	220 210 200 190 180 170	215 205 195 185 175 165	210 200 190 180 170 160	205 195 185 175 165 155	200 190 180 170 160 150	195 185 175 165 155 145	190 180 170 160 150 140	185 175 165 155 145 135	180 170 160 150 140 130	175 165 155 145 135 125	170 160 150 140 130 120	165 155 145 135 125 115	160 150 140 130 120 110	155 145 135 125 115 105	150 140 130 120 110 100	145 135 125 115 105 95	140 130 120 110 100 90	
17F	MED CND																								

SWEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

OCTOBER, 1960

TABLE 9

GODHAVN, GREENLAND (69.3N, 53.5W)

TIME 45.0W

[illegible]

SWEEP 1.6 MC TO 20.0 MC IN 18 SECONDS.

SEPTEMBER, 1960

TABLE 11

ANCHORAGE, ALASKA (61.2N, 149.9W)

TIME 150.0W

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SEPTEMBER, 1960

TABLE 10

REYKJAVIK, ICELAND (66.1N, 21.8W)

TIME 15.0W

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 16.2 SECONDS.

SEPTEMBER, 1960

TABLE 12

NARSSARSSUAG, GREENLAND (61.2N, 45.4W)

TIME 45.0W

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SEPTEMBER, 1960

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS, SEPT 1 THROUGH 15;

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS, SEPT 1 THROUGH 15;

SWEPT 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SWEPT 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

TABLE 17

BAGUIO. P. I. (16.4N, 120.6E)

TIME 120.0E

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

SEPTEMBER, 1960

TABLE 19

CONCEPCION, CHILE (36°6S, 73°0W)

TIME 75.0W

HOUR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	80	50	84	67	59	48	70	93	155	111	118	136	130	128	126	126	134	135	130	115	98	72	52	81
	CNT	92	70	91	75	64	57	74	101	116	124	126	130	136	135	134	130	129	128	125	28	26	23	23	
	MED	68	70	70	62	44	43	62	87	94	101	110	116	122	116	110	116	106	111	98	90	89	82	73	
	CNT	70	70	70	62	44	43	62	87	94	101	110	116	122	116	110	116	106	111	98	90	89	82	73	
f7F2	MED	270	280	300	325	275	300	320	350	260	272	280	272	260	272	280	272	260	272	280	272	260	272	280	
	CNT	270	280	300	325	275	300	320	350	260	272	280	272	260	272	280	272	260	272	280	272	260	272	280	
	MED	270	280	300	325	275	300	320	350	260	272	280	272	260	272	280	272	260	272	280	272	260	272	280	
	CNT	270	280	300	325	275	300	320	350	260	272	280	272	260	272	280	272	260	272	280	272	260	272	280	
f7F	MED	290	290	265	425	275	300	250	430	230	420	275	210	210	2075	220	230	240	250	240	2475	270	285	305	2975
	CNT	24	23	23	23	24	23	23	27	27	28	27	27	28	26	27	27	28	27	28	26	26	24	24	
	MED	305	310	250	270	340	250	440	230	265	245	250	250	250	250	250	250	250	250	250	250	250	250	250	
	CNT	235	275	235	425	199	450	250	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	
(M3000)F2	MED	270	280	300	325	275	300	320	350	260	272	280	300	300	2825	285	2875	305	300	375	260	350	360	285	
	CNT	23	23	23	23	22	20	21	22	27	28	28	27	28	26	28	28	28	26	22	16	20	19	22	
	MED	275	285	310	345	270	270	320	330	335	320	310	305	310	305	305	310	310	285	270	270	270	270	275	
	CNT	260	260	280	295	250	255	300	310	310	305	295	290	290	290	280	290	290	295	290	270	260	255	255	
f6F1	MED													1	3	1	1								
	CNT																								
f6E	MED					1	1	185	270	315	350	3675	370	380	375	340	335	280	220						
	CNT													32	15	10	33	30	25						
f7E	MED																								
	CNT																								
	MED					1	1	151	113	109	109	100	160	100	160	110	171	160	160	110	171	160	110	171	
	CNT																								
f6Ea	MED					17	23	23	23	36	39	40	42	39	38	34	39	255	26						
	CNT																								
	MED																								
	CNT																								
f6Ea	MED					24	23	23	23	27	27	27	27	26	26	28	28	28	26	24	24				
	CNT																								
	MED																								
	CNT																								

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

SEPTEMBER, 1960

TABLE 10

A PAZ, BOLIVIA (16.55, 68.14)

TIME 60.0W

hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6 F2	MEQ	0	85	86	87	88	0	78	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	
	CNT	20	22	22	18	19	17	18	23	22	19	17	18	17	18	17	21	22	20	16	13	10	10	14	
	LO	96	92	85	75	65	60	60	67	116	130	140	140	135	130	120	124	120	108	108	93	88	91	95	
	LO	80	77	66	60	52	47	46	86	114	130	140	140	135	131	107	105	98	90	90	80	80	83	85	
	MEQ	22	22	22	20	21	20	20	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
n' F2	MEQ	22	22	22	20	21	20	20	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
	CNT	20	22	22	18	19	17	18	23	22	19	17	18	17	18	17	21	22	20	16	13	10	10	14	
	LO	96	92	85	75	65	60	60	67	116	130	140	140	135	130	120	124	120	108	108	93	88	91	95	
	LO	80	77	66	60	52	47	46	86	114	130	140	140	135	131	107	105	98	90	90	80	80	83	85	
	MEQ	22	22	22	20	21	20	20	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
n' F	MEQ	220	220	220	230	260	250	250	250	E	4225	210	210	200	200	200	200	220	240	270	360	415	325	2725	235
	CNT	22	22	22	20	21	20	20	20	23	22	19	17	18	17	18	17	21	22	20	16	13	10	10	14
	LO	96	92	85	75	65	60	60	67	116	130	140	140	135	130	120	124	120	108	108	93	88	91	95	
	LO	80	77	66	60	52	47	46	86	114	130	140	140	135	131	107	105	98	90	90	80	80	83	85	
	MEQ	220	220	220	230	260	250	250	250	250	230	220	210	200	200	200	200	210	240	270	320	380	290	240	220
(M3000)F2	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	290
	CNT	14	18	15	13	14	16	16	16	16	15	15	13	13	11	15	10	11	15	10	9	8	9	11	
	LO	350	325	300	305	310	325	385	360	320	300	80	260	250	245	230	230	240	260	245	240	210	245	260	
	LO	300	300	300	290	275	285	270	300	300	270	270	230	220	220	215	220	210	210	210	210	210	210	210	
	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	
f6 F1	MEQ											2	3	4	4										
f6 E	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	290
	CNT	14	18	15	13	14	16	16	16	16	15	15	13	13	11	15	10	11	15	10	9	8	9	11	
	LO	350	325	300	305	310	325	385	360	320	300	80	260	250	245	230	230	240	260	245	240	210	245	260	
	LO	300	300	300	290	275	285	270	300	300	270	270	230	220	220	215	220	210	210	210	210	210	210	210	
	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	
n' E	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	290
	CNT	14	18	15	13	14	16	16	16	16	15	15	13	13	11	15	10	11	15	10	9	8	9	11	
	LO	350	325	300	305	310	325	385	360	320	300	80	260	250	245	230	230	240	260	245	240	210	245	260	
	LO	300	300	300	290	275	285	270	300	300	270	270	230	220	220	215	220	210	210	210	210	210	210	210	
	MEQ	310	3125	310	300	300	305	2925	315	3075	2825	270	250	2325	220	220	225	235	230	2325	225	215	250	260	
f6 E4	MEQ	38	355	30	275																				
	CNT	22	22	20	20	21	19	20	23	23	22	11	18	17	16	18	17	21	22	21	16	16	17	17	20
	LO	96	92	85	75	65	60	60	67	116	130	140	140	135	130	120	124	120	108	108	93	88	91	95	
	LO	80	77	66	60	52	47	46	86	114	130	140	140	135	131	107	105	98	90	90	80	80	83	85	
	MEQ	22	22	22	20	21	20	20	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

SWEEP 1.0 MC TO 25.0 MC \therefore 13.5 SECONDS.

SEPTEMBER, 1960

TABLE 21

POINT BARROW, ALASKA (71.3N, 156.8W)

MO*OST 3W11

HOUR	DATE																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	U	75	72	63	65	68	77	81	83	68	51	53	58	53	54	55	57	57	56	52	50	48	46	45	U
	MEO	16	12	10	16	21	14	13	16	20	24	23	28	26	27	30	29	30	26	25	20	22	17	10	U
	CNT	53	50	49	48	54	57	55	50	56	55	59	56	58	57	58	60	62	60	60	56	51	49	53	U
	LO	42	45	38	40	40	43	46	45	42	45	46	46	48	48	50	53	54	54	53	46	46	45	40	46
f'F2	MEO																								
	CNT																								
	LO																								
	U																								
f'F	MEO																								
	CNT																								
	LO																								
	U																								
(M3000)F2	MEO	275	275	277	275	270	265	260	275	265	250	240	255	250	260	260	265	2725	280	290	290	2875	2825	290	U
	CNT	16	12	10	16	21	12	15	14	18	21	23	28	26	27	29	29	30	26	25	20	22	16	13	U
	LO	280	290	300	290	280	280	275	255	265	270	270	270	275	275	270	250	285	300	300	300	295	290	305	U
	U	260	270	255	265	260	255	225	230	200	200			230	225	230	250	260	265	260	270	280	270	285	U
f6F1	MEO																								
	CNT																								
	LO																								
	U																								
f6E	MEO																								
	CNT																								
	LO																								
	U																								
f'6E	MEO																								
	CNT																								
	LO																								
	U																								
f6Ea	MEO	54	52	46	43	44	43	37	30	37	37	38	30	29	31	30	30	31	30	30	33	34.5	50	59	U
	CNT	29	29	29	26	29	29	29	30	30	27	28	30	29	31	30	30	31	30	30	30	30	29	29	U
	LO																								
	U																								

SWEEP 1.0 MC TO 25.0 MC IN 13.5 SECONDS.

AUGUST, 1960

REYKJAVIK, ICELAND (64.1N, 21.8W)

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f _o F ₂	MED	365	36	0.4	45	44	515	565	60	585	625	67	65	66	63	635	61	60	60	57	54	49	46	425
	CNT	2	1	1	3	4	11	10	12	15	18	17	20	21	27	26	29	28	23	22	18	16	8	2
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
h'F ₂	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
h'F	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
(M3000)F ₂	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
f _o F ₁	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
f _o E	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
h'E	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	
f _o E _s	MED	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
	CNT	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
	LO	380	340	390	42	42	48	54	53	52	55	56	56	60	57	59	57	56	55	54	50	47	40	

SWEEP 1.0 MC TO 25.0 MC IN 16.2 SECONDS.

AUGUST, 1960

GOOHAN, GREENLAND (69.3N, 53.5W)

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f _o F ₂	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
h'F ₂	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
h'F	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
(M3000)F ₂	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
f _o F ₁	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
f _o E	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
h'E	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
f _o E _s	MED	45	40	43	41	40	41	475	50	53	585	63	62	61	60	58	57	56	56	55	55	52	51	47
	CNT	30	26	21	21	23	22	18	22	22	23	23	20	23	24	27	27	29	30	29	31	31	28	30
	LO	59	59	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58

SWEEP 1.6 MC TO 20.0 MC IN 18 SECONDS.

AUGUST, 1960

GRAND BAHAMA I. (26.6N, 78.2W)

f _o F ₂	MED	61	625	62	56	53	50	57	70	78	76	80	84	88	91	895	84	89	835	825	79	75	68	65	625
	CNT	77	28	29	27	27	25	21	30	39	37	30	34	31	32	30	30	30	30	30	30	30	30	30	30
	LO	55	55	52	51	45	45	50	63	68	68	67	68	70	72	68	72	73	68	64	62	60	58	57	
	U																								
h'F ₂	MED	30	350	3375	375	380	360	365	365	345															
	CNT	2	597	116	42	41	46	41	46	43	47	42	40	37	34	35	285	285	285	285	285	285	285	285	285
	LO	280	284	280	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
	U																								
h'F	MED	290	280	260	270	270	260	235	220	210	205	209	215	220	220	220	220	220	220	220	220	220	220	220	
	CNT	29	29	29	29	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
	LO	280	284	280	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
	U																								
(M3000)F ₂	MED	270	280	280	285	285	280	300	30720	30300	290	280	270	2725	270	2725	275	285	290	2975	295	280	2725	270	270
	CNT	25	28	27	27	25	26	21	30	29	27	30	30	28	28	28	28	28	28	28	28	28	28	28	
	LO	265	270	270	270	260	245	285	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	
	U																								
f _o F ₁	MED																								
	CNT																								
	LO																								
	U																								
f _o E	MED																								
	CNT																								
	LO																								
	U																								
h'E	MED																								
	CNT																								
	LO																								
	U																								
h'E	MED																								
	CNT																								
	LO																								
	U																								
h'E	MED																								
	CNT																								
	LO																								
	U																								
h'E	MED																								
	CNT																								
	LO																								
	U																								

TABLE 34

TUCUMAN, ARGENTINA 126.95, 65.4W)

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

OCTOBER, 1959

TABLE 36

CONCEPCION, CHILE (36.6S, 73.0W)

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 13.6 SECONDS.

SEPTEMBER, 1959 10

TABLE 33

MILES STATION (66-95) 130 SE 1

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 15 OR 30 SECONDS

NOVEMBER, 1959

TABLE 35

WILLIAMS, J. A., AND R. L. WILSON. 1967. The effect of temperature on the growth and survival of the larval stages of the American oyster, *Ostrea edulis*. *Bulletin of the United States Fish and Wildlife Service* 108:1-12.

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

SEPTEMBER, 1959

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

AUGUST, 1959

TABLE 39

UCUMAN, ARGENTINA (26.9S, 65.4W)

TIME 60.0W

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

JULY, 1959

TABLE 30

SAO PAULO, BRAZIL 123.5S, 46.5W1

[illegible]

SWEEP 1.75 MC TO 20.0 MC IN 2 MINUTES 30 SECONDS.

JULY, 1959

TABLE 40

WILKES STATION 166.35, 110.5EI

TIME 0.0

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f ₀ F2	MEO UD LO	3	4	5	6	7	8	1	1	1	3	3	2	2	2	2	2	1	2	1	2	1	1	2
h ¹ F2	MEO CNT LO																							
h ¹ F	MEO CNT UD LO	240 5	240 7	240 14	245 12	245 11	255 10	250 4	250 8	250 15	250 11	240 11	240 9	250 8	265 7	240 8	260 5	250 8	230 7	240 9	240 4	240 3	240 0	240 7
IM3000F2	MEO CNT UD LO	3	3	3	3	4	4	2	1	1	1	1	1	1	1	1	1				1	1	1	1
f ₀ F1	MEO CNT																							
f ₀ E	MEO CNT	2		2	1	1	1	3		1	1	1	3	3	4	3	2	2	3	1	2	1	2	1
h ¹ E	MEO CNT	2		1	4	2		1	3	1	1	1	3	3	4	3	2	1	3	1	2	1	1	1
f ₀ E4	MEO CNT	15	17	19	19	18	17	18	18	18	18	18	18	17	17	17	17	17	17	17	17	15	15	15

SWEEP 1.0 MC TO 25.0 MC IN 15 OR 30 SECONDS.

JULY • 1959

TABLE 42

TUCUMAN, ARGENTINA (26.95, 65.44)

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

JUNE, 1959

TABLE 41

CONFESSION: GERMANY (1933-1945)

[illegible]

SWEEP 1.25 MC TO 20.0 MC IN 3 MINUTES.

JUNE • 1959

TABLE 43

THREE STATION (66.8°-110.5E)

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 15 OR 30 SECONDS

1060

TABLE 44

REIBURG, GERMANY (48.1N, 7.6E)

	hour	DO	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23
f6F2	MEQ	75	71	27	23	66	79	76	83	86	92	88	92	96	93	84	92	91	93	92	91	86	92	78	76
	CNT	29	29	29	30	30	29	29	30	31	30	30	30	30	31	30	29	29	29	25	26	28	26	28	29
	MEQ	78	76	72	69	71	80	88	95	96	97	98	100	102	103	102	100	99	100	98	91	86	92	80	80
	CNT	70	67	62	58	60	62	67	65	72	77	82	80	85	87	86	84	84	86	83	80	77	74	72	
	LQ																								
h'F2	MEQ	385	395	370	400	430	335	405	395	378	398	385	375	375	355	350	322	300							
	CNT	1	1	4	6	9	13	12	12	18	18	24	23	20	11	6	4	2							
	MEQ	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510							
	CNT	30	30	30	30	30	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	30
	LQ																								
h'F	MEQ	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510							
	CNT	30	30	30	30	30	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	30
	MEQ	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230							
	CNT	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	30
	LQ																								
(M3000F2	MEQ	266	246	249	248	259	278	274	282	267	264	266	264	264	266	267	269	273	277	279	282	266	260	255	252
	CNT	28	27	28	29	29	29	30	30	29	30	30	28	29	29	30	28	29	28	29	28	26	26	28	29
	MEQ	234	258	257	260	274	284	285	287	283	275	275	270	272	271	270	274	278	284	285	286	280	267	263	260
	CNT	240	231	236	235	244	252	261	258	259	255	254	252	252	259	250	252	264	260	272	274	275	263	253	250
	LQ																								
f6F1	MEQ	310	300	498	500	530	560	565	585	595	590	580	570	565	560	558	545	515	470						
	CNT	1	3	6	7	9	10	10	10	10	10	10	10	10	10	10	10	10	10						
	MEQ	145	125	235	290	310	350	370	380	390	392	385	375	360	328	285	235	190							
f6E	MEQ	12	23	30	30	29	28	25	23	26	24	20	24	24	24	26	16	5							
	CNT																								
	MEQ	99	115	107	103	103	103	103	102	101	103	103	103	105	108	115	108	115	108	115	108	115	108	115	108
h'E	MEQ	22	27	29	29	29	27	24	22	21	26	27	27	28	26	23	14								
	CNT																								
	MEQ	18	25	33	37	40	43	41	41	42	42	41	41	42	42	41	43	40	38	30	29	19	19	18	E
f6E4	MEQ	30	30	30	30	29	30	21	29	30	31	28	29	29	29	29	29	29	29	29	29	29	29	29	30
	CNT																								
	MEQ	30	30	30	30	29	30	21	29	30	31	28	29	29	29	29	29	29	29	29	29	29	29	29	30

SWEEP 1.25 MC TO 20.0 MC IN 3 MINUTES.

MAY 1959

TABLE 46

STREIBURG, GERMANY (48.1N, 7.6E)

[illegible]

TABLE 48

NEE8, SOUTH W. AFRICA (19.2S, 17.7E)

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f ₆ F2																								
MED	654	561	521	457	38	335	633	930	1163	1283	1363	1374	1378	1402	1407	1388	1366	1331	129	1176	1069	1025	922	775
CNT	28	29	28	29	30	30	30	28	28	28	28	28	29	27	28	29	29	30	28	26	26	28	28	27
LO																								
h'F2																								
MED										290			345	310										
CNT										1			1											
LO																								
h'F																								
MED	248	247	250	230	235	255	253	230	225	220	215	215	217	222	229	230	240	248	235	227	230	238	230	236
CNT	30	29	27	25	23	25	28	29	28	26	28	28	29	26	26	26	28	29	27	22	27	28	27	28
LO																								
(M3000)F2																								
MED	282	290	294	300	308	282	281	328	307	284	288	277	268	266	264	264	266	273	282	286	285	290	296	281
CNT	27	27	27	28	29	26	29	28	28	27	28	28	26	25	28	28	28	29	27	26	26	28	28	27
LO																								
f ₆ F1																								
MED										640			710	602										
CNT										1			1											
LO																								
f ₆ E																								
MED										167	261	325	360	385	400		405	395	381	357	317	227		
CNT										13	29	28	27	28	27		27	24	26	26	20	9		
LO																								
h'E																								
MED										120	110	105	105	102	108		107	108	108	112	117			
CNT										5	18	5	1			2	2	2	1	7				
LO																								
f ₆ E _A																								
MED																								
CNT																								
LO																								

TABLE 45

TUCUMAN, ARGENTINA (26.9S, 65.4W)

[illegible]

TABLE 67

NATAL, BRAZIL (5.35. 35.1W)

[illegible]

TABLE 49

TUCUMÁN - ARGENTINA (26-9S, 65-4W)

TIME 60.00

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT LO	168 23 28	150 20 20	116 20 20	72 24 25	48 25 26	76 25 26	115 25 25	132 25 25	140 25 25	146 25 25	153 21 21	163 21 21	173 21 21	185 23 23	195 23 23	205 25 25	215 25 25	225 25 25	235 24 24	245 24 24	255 25 25	265 24 24	275 25 25	285 25 25
f7F2	MED CNT LO																								
f7F	MED CNT LO	230 24 24	225 24 24	220 24 24	215 24 25	200 24 25	230 22 22	255 22 25	230 22 25	220 22 25	220 22 25	220 19 12	220 19 12	205 11 15	225 15 18	230 16 16	230 23 24	250 23 24	265 24 24	270 24 24	275 25 25	280 24 24	285 25 25	290 24 24	295 25 25
f830001F2	MED CNT LO	300 18 20	310 20 19	310 20 19	335 20 20	340 21 20	295 23 25	290 23 24	300 24 24	315 24 23	310 23 21	295 21 21	285 21 21	260 21 20	250 20 18	255 20 16	260 19 15	265 19 15	265 15 13	265 13 8	275 5 5	280 13 18	285 21 21	290 21 21	295 21 21
f6F1	MED CNT LO																								
f6E	MED CNT									110 14 12	190 300 1														
f7E	MED CNT																								
f7E	MED CNT																								
f6Ea	MED CNT	25	24	24	25	25	25	25	25	25	24	23	25	26	26	25	25	27	27	27	27	27	28	28	27

TABLE 50

WILKES STATION (66.9S, 110.5E)

TIME 0.0

[illegible]

TABLE 51

PARAMARIBO, SURINAM (S.8N, 55.2W)

TIME 0.0

[illegible]

TABLE 52

BUENOS AIRES, ARGENTINA (34.5S, 58.5W)

IME 60.0W

[illegible]

SWEEP 1.4 MC TO 20.0 MC IN 40 SECONDS.

JANUARY 1960

SWEEP 1 0 W 10 2% 0 W IN 11.5 SECONDS.

NOVEMBER, 1958

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

APRIL, 1959

SWEEP 1.0 MC TO 25.0 MC IN 15 OR 30 SECONDS.

MARCH, 1959

TABLE 54

BUDAPEST, HUNGARY (47.4N, 19.2E)

[illegible]

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

OCTOBER, 1958

TABLE 53

ALERT. CANADA 182.6N, 62.6W1

[illegible]

SWEEP 1.6 MC TO 20.0 MC IN 15 SECONDS.

OCTOBER, 1958

TABLE 55

PARAMARIBO, SURINAM 15.8N, 55.2W)

[illegible]

SWEEP 1.4 MC TO 20.0 MC IN 40 SECONDS.

OCTOBER, 1958

TABLE 56

BUENOS AIRES, ARGENTINA 134.5S, 58.5W)

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

OCTOBER, 1958

TABLE 57

BUDAPEST, HUNGARY (47.4N, 19.2E)

TIME 0.0

	hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	38	53	59	65	70	85	91	97	103	110	106	106	106	106	100	98	95	92	83					
	CNT	21	22	22	22	21	21	21	22	22	21	22	22	21	20	21	22	22	22	19	21	20	22	22	22
	UD																								
	LO																								
n'F2	MED							3	2	7	4	7	10	375	8	11	7	1							
	CNT																								
	UD																								
	LO																								
n'F	MED	335	335	335	315	300	265	250	245	235	235	230	235	235	240	250	260	270	275	280	295	295	320	335	355
	CNT	21	20	22	22	22	21	21	22	19	20	21	19	19	21	20	21	20	19	20	21	20	19	21	22
	UD																								
	LO																								
BA3000F2	MED																								
	CNT																								
	UD																								
	LO																								
f6F1	MED																								
	CNT																								
f6E	MED						230	260	320	350	370	370	370	360	360	360	280	260							
	CNT						31	19	22	22	18	18	16	17	20	18	18	17	3						
n'E	MED						135	125	120	120	120	120	120	120	120	125	125	130							
	CNT						12	19	22	22	18	18	16	17	20	18	16	17	3						
f6Ea	MED	5	6	10	4	6	8	12	15	16	16	13	14	13	7	7	9	8	10	7	6	5	4		
	CNT																								

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

SEPTEMBER, 1958

TABLE 59

ALERT, CANADA 182.6N, 62.6W)

TIME 75.0W

[illegible]

SWEEP 1.6 MC TO 20.0 MC IN 15 SECONDS.

AUGUST, 1958

TABLE 58

BUENOS AIRES, ARGENTINA (34.5S, 58.5W)

TIME 60.0W

[illegible]

SWEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

SEPTEMBER, 1958

TABLE 60

HALLEY BAY (75.55, 26.6W)

TIME 30.0W

[illegible]

SLEEP 0.65 MC TO 25.0 MC IN 5 MINUTES. AUTOMATIC OPERATION.

AUGUST, 1958

TABLE 62

VALLEY BAY (75.5S, 26.6W)

[illegible]

TABLE 64

REGISTRATION 1-148-65, 70-351

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MEQ CNT UO LO	26 16 22 4	16 22 5	22 5	22 5	24 8	23 9	26 7	30 8	U	50 78	90 90	105 105	121 121	133 133	130 130	119 117	92 92	62 62	46 5	11 13	7 7	5 5	16 16	7 7
h'F2	MEQ CNT UO LO																								
h'F	MEQ CNT UO LO	310 10	310 6	312 8	340 9	332 10	340 10	350 10	310 8	272 16	245 21	245 21	245 21	245 21	245 23	250 23	250 24	240 19	230 22	230 15	240 15	245 15	250 13	265 8	298 8
(M3000)F2	MEQ CNT UO LO	U 250	U 260	U 275	U 280	U 250	U 255	U 270	U 268	U 292	U 308	U 300	U 290	U 285	U 285	U 295	U 290	U 290	U 268	U 295	U 312	U 310	U 280	U 262	U 252
f6F1	MEQ CNT																								
f6E	MEQ CNT									155 6	240 9	268 8	300 11	290 11	280 5	250 6	205 7	135 1	125 1				130 1		
h'E	MEQ CNT									136 5	135 5	130 8	126 9	125 10	125 6	130 6	160 1	170 1	150 1				156 1	156 1	156 1
f6Eh	MEQ CNT	16 14	34 17	39 14	39 16	15 12	16 15	15 13	17 7	0 10	26 10	30 9	30 11	38 12	28 11	21 5	24 8	26 5	15 6			20 6	14 9	30 11	15 13

TABLE 61

UNCLASSIFIED - UNCLASSIFIED - 1.7 - 1.1N - 10-521

BUDAPEST, HUNGARY - 1-7, JAN. 1942																								TIME OF DAY			
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
f6F2 MEQ CNT UO LO	68 65 62 60	65 64 29	62 59 30		74 77 26	77 78 26	77 78 26	77 78 26	77 78 26	81 83 27	83 87 27		92 91 23	91 79 30	79 78 30	79 79 28	79 79 28	79 79 28	77 77 27	77 77 27	75 65 23	66 66 25	66 66 27	66 66 26			
n'F2 MEQ CNT UO LO				2	400 375 375 400	400 375 375 400	400 375 375 400	425 440 450 435	425 440 450 435	425 440 450 435	425 440 450 435	425 440 450 435	430 430 410	400 400 400	370 345 345	370 345 345	370 345 345	370 345 345									
n'F MEQ CNT UO LO	325 320 320 310	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235	275 260 245 235			
M3000IF2 MEQ CNT UO LO																											
f6F1 MEQ CNT	2	5	9	19	18	22	22	24	25	25	25	25	580	580	570	530	520	410									
f6E MEQ CNT	190	230	280	320	340	370	380	380	380	380	380	380	380	380	360	340	300	260	2								
n'E MEQ CNT	125	130	125	120	120	115	115	115	115	115	115	115	120	125	120	120	120	130									
f6Ea MEQ CNT	27	33	30	27	37	40	48	50	55	55	55	54	48	44	47	50	47	43	44	38	40	48	37	32			
	9	10	10	10	18	23	24	28	25	25	25	21	21	24	26	22	24	26	22	18	22	14	13	11			

TABLE 63

BUDAPEST, HUNGARY (47.6N, 19.2E)

[illegible]

TABLE 65

TERRE ADELIE (66.7S, 140.0E)

[illegible]

SWEEP 1.2 MC TO 17.0 MC IN 1 MINUTE.

JUNE • 1958

TABLE 67

MARION L. 146-AS. 17-9EI

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
fe2	MED CMT LO	U ₃₄ 5	U ₃₅ 4	U ₃₇ 4	U ₃₉ 3	U ₄₁ 1	U ₄₃ 5	U ₄₅ 5	U ₄₇ 100	U ₄₉ 9	U ₅₁ 14	U ₅₃ 15	U ₅₅ 15	U ₅₇ 14	U ₅₉ 12	U ₆₁ 13	U ₆₃ 12	U ₆₅ 110	U ₆₇ 93	U ₆₉ 74	U ₇₁ 5	U ₇₃ 32	U ₇₅ 31	U ₇₇ 35	U ₇₉ 35
n'f2	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								
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n'f	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								
n'f	MED CMT LO																								

SWEEP 1.6 MC TO 19.0 MC IN 1A SECONDS.

MAY - 1968

TABLE 66

BUDAPEST, HUNGARY (47.4N, 19.2E)

[illegible]

Sweep 1.0 MC TO 20.0 MC IN 35 SECONDS.

MAY. 1958

TABLE 68

K. ERGUELEN T. (49.45. 70.3E)

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED	23	26	28	33	26	27	28	33	U	0	0	0	0	0	0	0	U	110	68	75	50	45	29	28
	UO	15	16	14	18	20	20	18	23	U	11	18	14	11	6	8	6	7	4	3	5	10	17	19	11
	LO																								
16F2	MED																								
	UO																								
	LO																								
16F2	MED	280	300	310	330	350	345	335	302	252	250	250	248	245	245	248	250	240	240	245	230	238	250	275	270
	UO	22	24	26	27	25	24	20	26	26	26	26	25	28	27	27	28	27	25	27	28	29	28	18	23
	LO																								
16F2	MED	260	255	258	230	240	325	U	258	U	0	285	300	292	U	285	255	270	270	U	282	278	295	300	285
	UO	14	15	12	15	15	13	18	11	15	11	8	3	3	3	3	3	1	2	4	10	18	16	11	
	LO																								
16F1	MED																								
	UO																								
	LO																								
16E	MED	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	UO	12	14	9	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	LO																								
16E	MED	130	130	150	125	120	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	UO	5	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	LO																								
16E	MED	35	25	16	36	14	15	15	12	16	16	11	14	16	14	14	15	14	15	16	15	15	15	14	16
	UO	12	14	9	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	LO																								

SPEED 0-80 MC TO 14-14 MC IN 10 MINUTES. AUTOMATIC OPERATION.

May - 1958

TABLE 73

BUENOS AIRES, ARGENTINA (34.5S, 58.5W)

TIME 60.0W

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	330	120	125	105	80	75	92	110	125	135	135	145	150	155	158	162	155	150	158	155	160	158	161	160
	CNT	18	20	20	20	19	19	16	17	19	18	18	19	20	19	20	20	20	20	20	20	18	18	20	19
	LO																								
h'F2	MED																								
	CNT																								
	LO																								
h'F	MED	310	300	280	250	240	260	275	240	235	235	235	240	240	240	240	250	260	260	270	280	295	290	290	295
	CNT	18	20	20	20	20	16	15	17	17	19	17	13	10	6	8	6	7	14	15	20	20	17	19	20
	LO																								
INX000IF2	MED	260	270	290	285	260	255	265	300	295	280	280	270	260	255	255	260	265	270	275	270	260	270	270	265
	CNT	17	20	20	20	18	18	17	17	17	17	17	18	20	19	20	20	20	20	20	20	18	17	18	17
	LO																								
f6FI	MED																								
	CNT																								
	LO																								
f6E	MED																								
	CNT																								
	LO																								
h'E	MED																								
	CNT																								
	LO																								
f6EA	MED	28	31	34	36	36	33	36	33	43	53	55	66	63	60	60	60	50	44	45	45	40	35	27	24
	CNT	3	11	15	18	18	15	16	9	7	5	5	12	16	15	11	17	16	16	12	7	6	2	1	
	LO																								

SWEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

MARCH, 1958

TABLE 74

MARION I. 146.0S. 37.9E)

TIME 0.0

	NGR	50	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6 F2	MED CNT UO LO				36 72 1 1				0 71 1	U 118 1	U 121 1	U 134 1	U 146 1	U 155 7	U 161 5	U 168 5	U 170 6	U 175 4	U 178 2	U 181 5	U 184 6	U 186 27	U 191 1		
n' F2	MED CNT UO LO																								
n' F	MED CNT UO LO					245 1								215 1	240 1	240 4	240 6	230 2							
IN3000F2	MED CNT UO LO				290 1					U 290 1	U 275 1	U 270 5	U 280 5	U 280 2	U 280 2	U 280 2	U 285 2	U 290 2	U 290 2	U 310 2	U 310 2	U 310 2	U 310 2	U 310 2	U 310 2
f6 F1	MED CNT																								
f6 E	MED CNT					U 270 1																			
n' E	MED CNT																								
f6 E1	MED CNT									U 38 1	U 40 1	U 51 1	U 55 1	U 56 5	U 61 6	U 65 7	U 70 7	U 75 7	U 80 7	U 85 7	U 90 7	U 95 7	U 100 7	U 105 7	U 110 7

SWEEP 1.6 MC TO 19.0 MC IN 18 SECONDS.

MARCH, 1958

TABLE 75

Kerguelen I. 149.45. 70.3E)

TIME 75.0E

[illegible]

SWEEP 0.80 MC TO 14.14 MC IN 10 MINUTES, AUTOMATIC OPERATION.

MARCH, 1958

TABLE 76

TERRE ADELIE 166.75, 140.00EI

TIME 135.0E

[illegible]

SWEEP 1.2 MC TO 17.0 MC IN 1 MINUTE.

MARCH, 1958

TABLE 90
BUDAPEST, HUNGARY (47.4N, 19.2E)[illegible]

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

APRIL, 1957

TABLE 90

[illegible]

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

MARCH, 1957

TABLE 91

BUDAPEST, HUNGARY (47.4N, 19.2E)

	MDR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT LO	47 25 46	46 26 44	44 26 44	43 26 46	37 26 46	38 26 46	58 25 46	90 25 46	108 24 23	115 23 21	124 23 21	130 19 22	123 22 26	120 26 22	110 24 26	103 26 25	94 25 25	85 25 26						
16F2	MED CNT LO	305 25 310	310 26 310	310 26 310	315 26 310	300 26 310	300 25 310	265 23 27	236 23 27	230 27 26	230 27 26	230 27 26	230 25 26	230 25 26	230 26 25	235 26 25	235 26 25	230 26 25	230 26 25	230 25 24	245 25 25	280 25 26	285 25 26	300 25 26	
16F	MED CNT LO																								
16F	MED CNT LO																								
16F1	MED CNT								1	2	4	4	5	6	4	2		3							
16E	MED CNT								2	240	280	300	320	320	320	320	280	260	210						
16E	MED CNT								2	13	23	24	22	24	23	24	23	23	10						
16E	MED CNT								2	120	120	110	115	110	115	115	115	120	130						
16E1	MED CNT									12	23	24	23	24	23	24	23	22	10						

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

FEBRUARY, 1957

BUDAPEST, HUNGARY (47.4N, 19.2E)

[illegible]

SWEEP 1.0 MC TO 20.0 MC IN 35 SECONDS.

JANUARY, 1957

TABLE 94

FREIBURG, GERMANY (48°14'N, 7°48'E)

FREIBURG, GERMANY (46.11N, 7.8E)																								
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16 F2	MEQ CMT UO LO	31 29 30 30	32 30 30 30	32 29 30 30	31 29 30 30	29 26 30 30	26 24 30 30	37 30 30 30	48 30 30 30	54 30 30 30	57 30 30 30	62 29 30 30	58 29 30 30	57 30 30 30	59 30 30 30	53 29 30 30	42 30 30 30	34 30 30 30	32 30 30 30	30 30 30 30	30 30 30 30	31 30 30 30	32 30 30 30	
17 F2	MEQ CMT UO LO								230 10	230 18	235 19	248 26	240 25	242 25	242 12	235 12	2							
17 F	MEQ CMT UO LO	278 30	272 30	265 29	260 29	248 30	240 30	230 25	220 27	220 27	222 27	222 27	222 27	222 27	222 27	222 27	220 28	210 27	232 24	240 23	455 29	250 29	275 29	270 29
180000F2	MEQ CMT UO LO	297 29	300 29	300 29	300 28	318 30	332 30	340 30	348 30	362 29	369 30	362 29	358 29	362 29	352 30	351 29	359 29	362 30	350 30	325 30	326 30	343 30	310 30	297 300
16 F1	MEQ CMT								1	5	360 1	370 5	1	1										
16 E	MEQ CMT								176 23	220 20	241 17	258 20	265 20	255 20	236 20	202 21	159 8							
17 E	MEQ CMT								125 14	118 17	116 18	116 20	115 18	115 19	121 10	3								
16 E4	MEQ CMT	E 30	E 30	E 30	E 30	E 30	E 30	E 30	E 30	E 30	E 26	E 26	E 22	E 22	E 22	E 20	E 20	E 18	E 14	E 30	E 30	E 30	E 30	E 30

SWEEP 1-25 MC TO 20.0 MC IN 10 MINUTES.

NOVEMBER, 1954

TABLE 93

FREIBURG, GERMANY (48°14'N, 7°48'E)

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MEQ CMT UO LO	32 31 30 30	32 31 30 30	32 31 30 30	32 31 30 30	31 26 30 30	26 24 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30	25 26 30 30
17F2	MEQ CMT UO LO									2	4	14	21	23	22	22	4							
17F	MEQ CMT UO LO	260 28	255 29	255 30	260 31	245 31	240 31	230 26	230 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26	225 26
180000F2	MEQ CMT UO LO	303 31	306 31	303 31	306 31	306 31	323 31	327 31	360 31	366 31	366 31	366 31	362 31	362 31	362 31	360 31	360 31	349 31	326 31	326 31	326 31	326 31	326 31	326 31
16F1	MEQ CMT									3	2	1												
16E	MEQ CMT									152 20	207 25	227 23	241 28	249 28	242 28	222 28	192 22	152 13						
17E	MEQ CMT									151 9	126 14	120 15	119 12	119 12	120 12	125 10	149 8							
16E4	MEQ CMT									16 31	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30	20 30

SWEEP 1-25 MC TO 20.0 MC IN 10 MINUTES.

DECEMBER, 1954

TABLE 95

FREIBURG, GERMANY (48°14'N, 7°48'E)

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MEQ CMT UO LO	30 31 30 30	29 30 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29	29 28 29 29
17F2	MEQ CMT UO LO									240 7	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14	240 14
17F	MEQ CMT UO LO	282 28	280 28	270 28	265 28	250 28	230 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28	220 28
180000F2	MEQ CMT UO LO	294 28	291 28	300 28	300 28	316 28	316 28	354 28	360 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28	366 28
16F1	MEQ CMT									352 8	366 10	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17	366 17
16E	MEQ CMT									194 21	216 24	252 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19	282 19
17E	MEQ CMT									136 10	117 19	111 25	109 22	109 22	109 22	109 22	109 22	109 22	109 22	109 22	109 22	109 22	109 22	109 22
16E4	MEQ CMT									16 31	22 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30	29 30

SWEEP 1-25 MC TO 20.0 MC IN 10 MINUTES.

OCTOBER, 1954

TABLE 96

FREIBURG, GERMANY (48°14'N, 7°48'E)

FREIBURG, GERMANY (48.1N, 7.4E)																								
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f _o F ₂	MEQ CMT UO LO	31 29 30 30	30 28 29 29	28 26 29 29	27 26 29 29	27 26 29 29	32 30 30 30	38 30 30 30	43 28 30 30	46 26 28 28	48 26 28 28	52 27 29 29	49 27 29 29	49 27 29 29	49 27 29 29	49 27 29 29	49 27 29 29	48 50 52 54	50 27 30 29	52 27 30 29	54 30 30 30	35 30 30 30	29	
h'F ₂	MEQ CMT UO LO																							

SWEEP 1-25 MC TO 20.0 MC IN 10 MINUTES.

SEPTEMBER, 1954

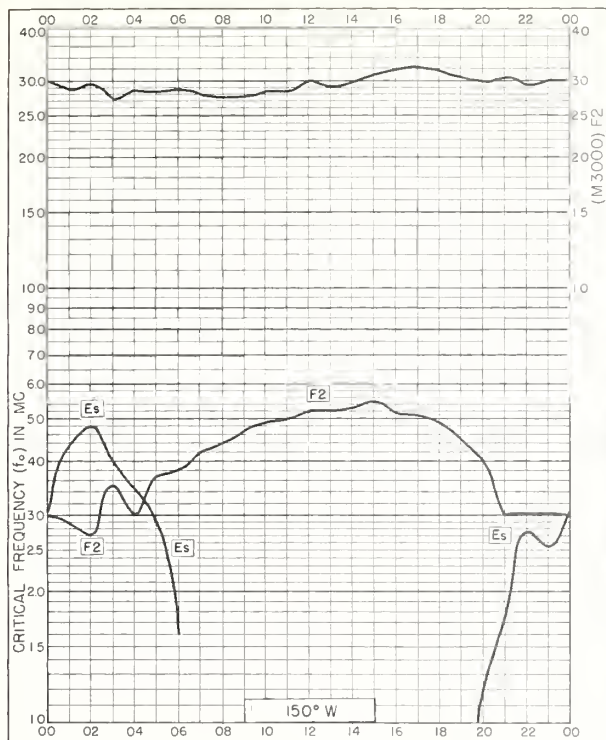


Fig. 1. FAIRBANKS, ALASKA
64.9°N, 147.8°W SEPTEMBER 1961

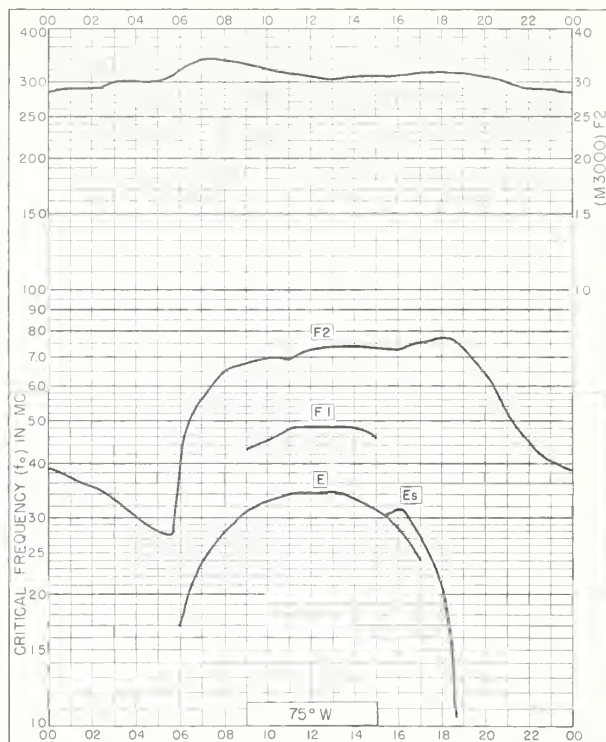


Fig. 2. WASHINGTON, D. C.
38.7°N, 77.1°W SEPTEMBER 1961

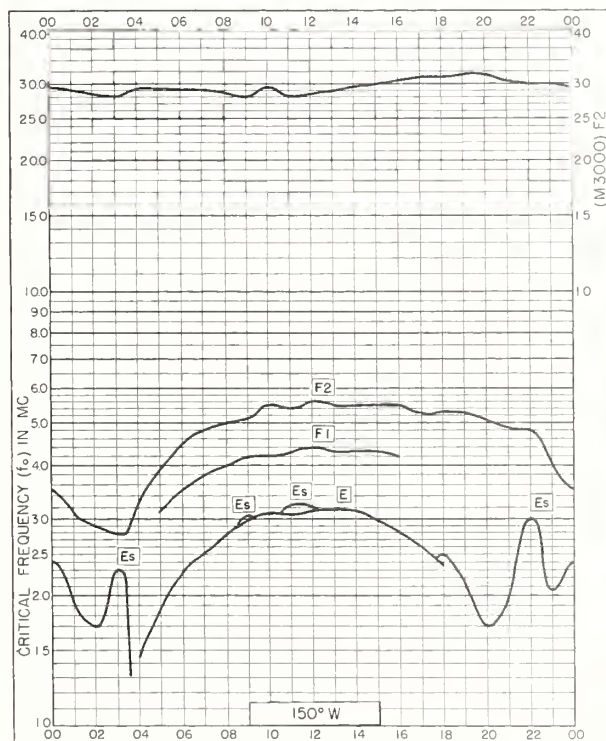


Fig. 3. ANCHORAGE, ALASKA
61.2°N, 149.9°W AUGUST 1961

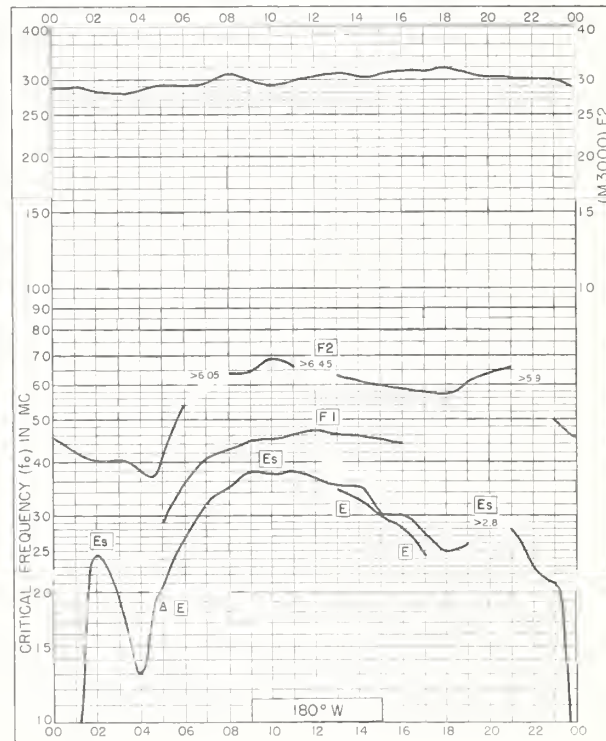


Fig. 4. ADAK, ALASKA
51.9°N, 176.6°W AUGUST 1961

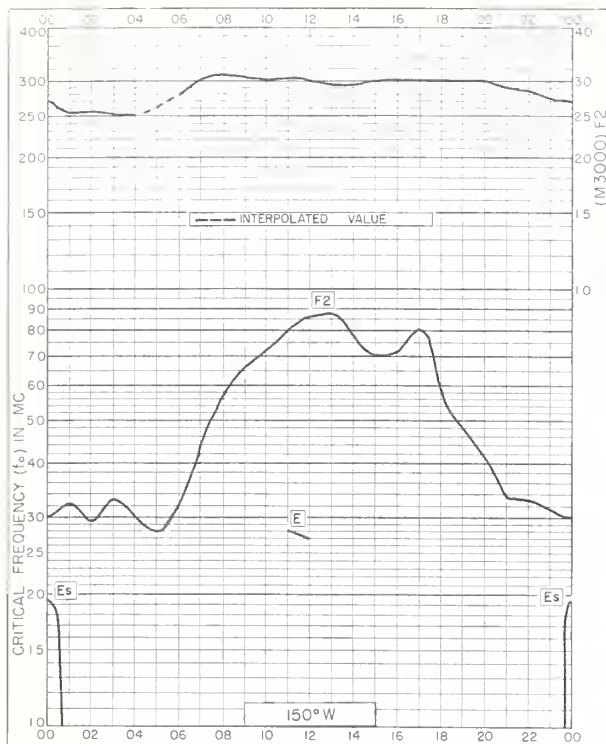


Fig. 5. ANCHORAGE, ALASKA
61.2°N, 149.9°W
OCTOBER 1960

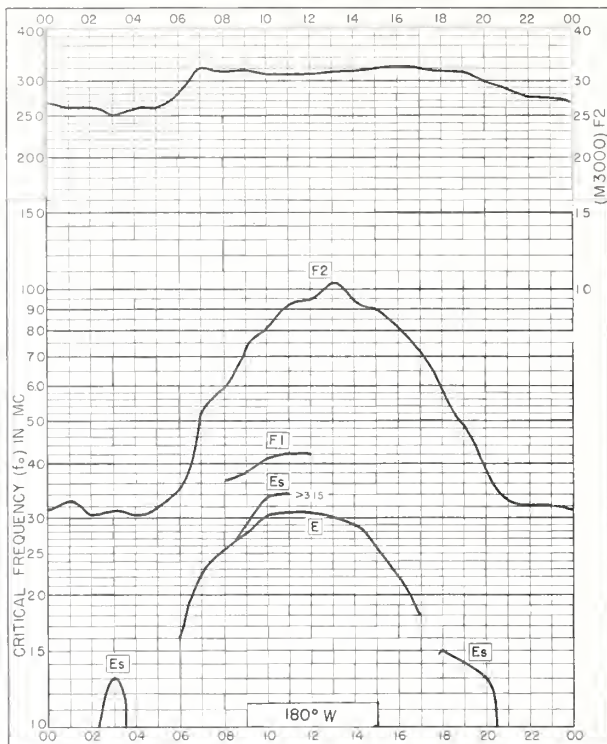


Fig. 6. ADAK, ALASKA
51.9°N, 176.6°W
OCTOBER 1960

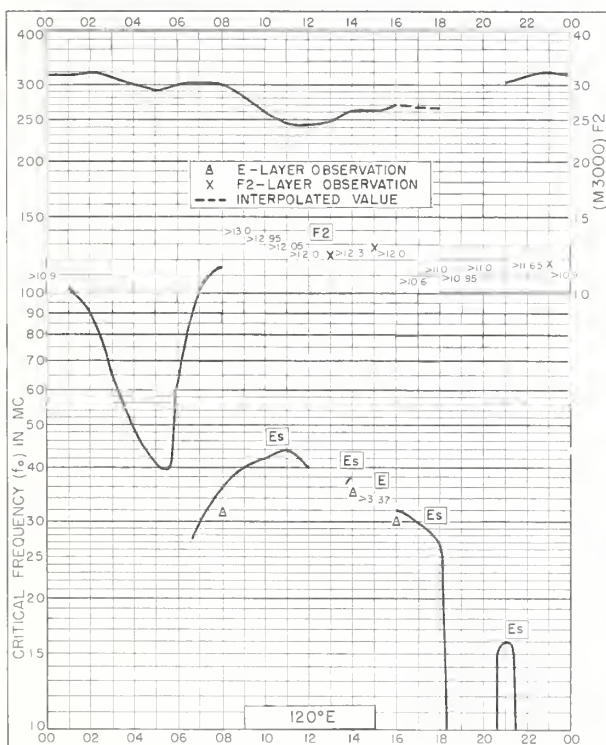


Fig. 7. BAGUIO, P. I.
16.4°N, 120.6°E
OCTOBER 1960

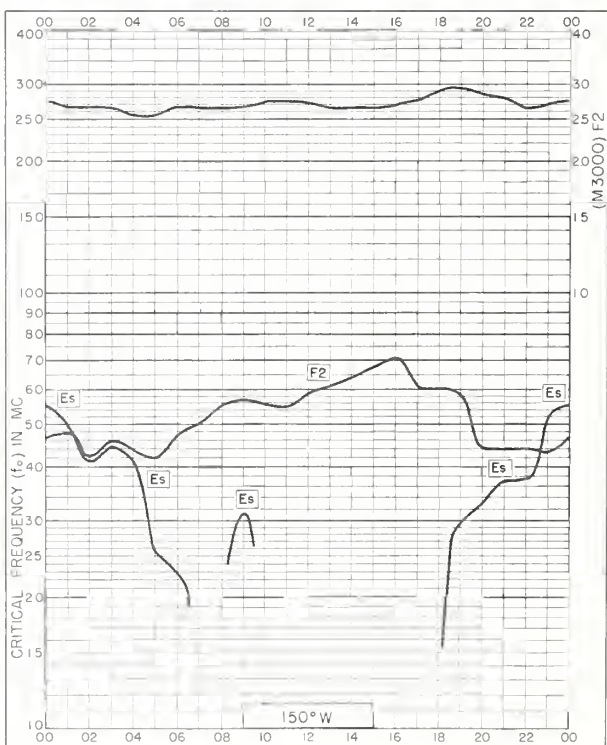


Fig. 8. POINT BARROW, ALASKA
71.3°N, 156.8°W
SEPTEMBER 1960

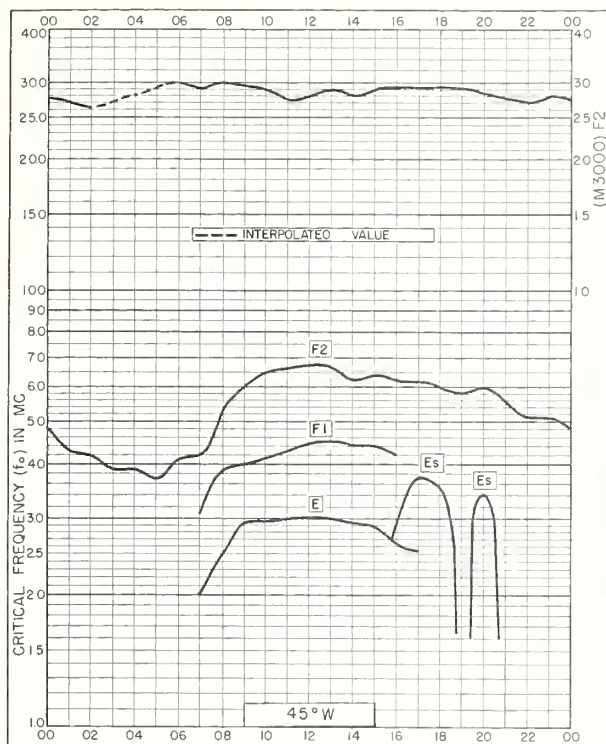


Fig. 9. GODHAVN, GREENLAND
69.3°N, 53.5°W SEPTEMBER 1960

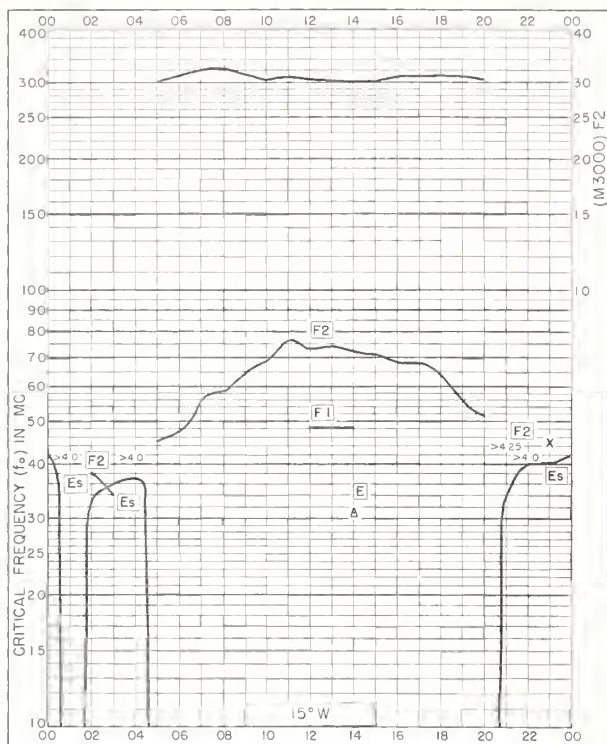


Fig. 10. REYKJAVIK, ICELAND
64.1°N, 21.8°W SEPTEMBER 1960

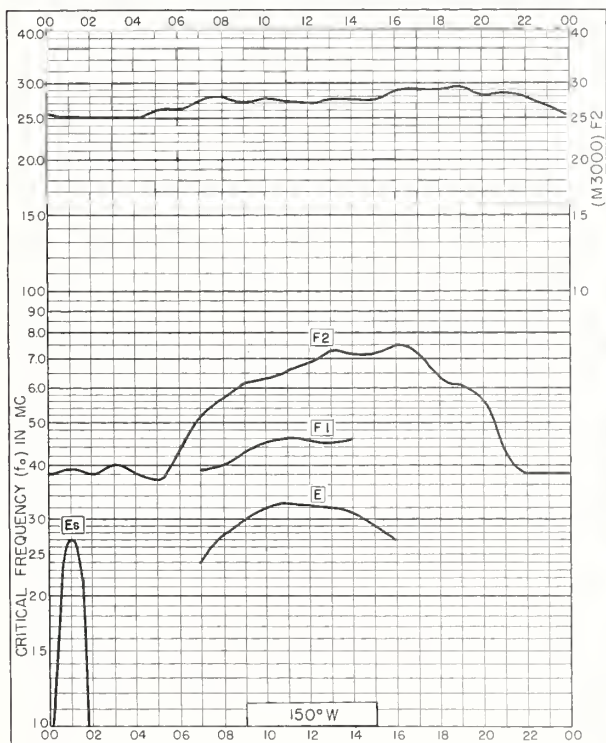


Fig. 11. ANCHORAGE, ALASKA
61.2°N, 149.9°W SEPTEMBER 1960

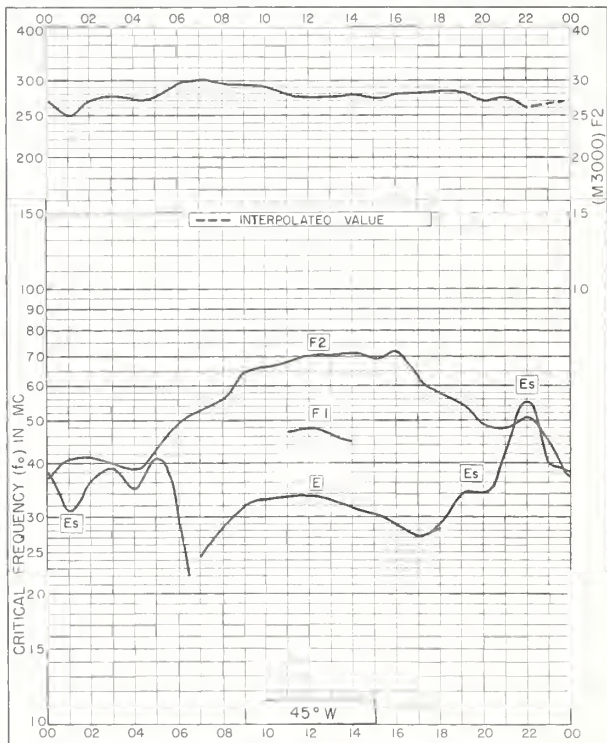


Fig. 12. NARSSARSSUAQ, GREENLAND
61.2°N, 45.4°W SEPTEMBER 1960

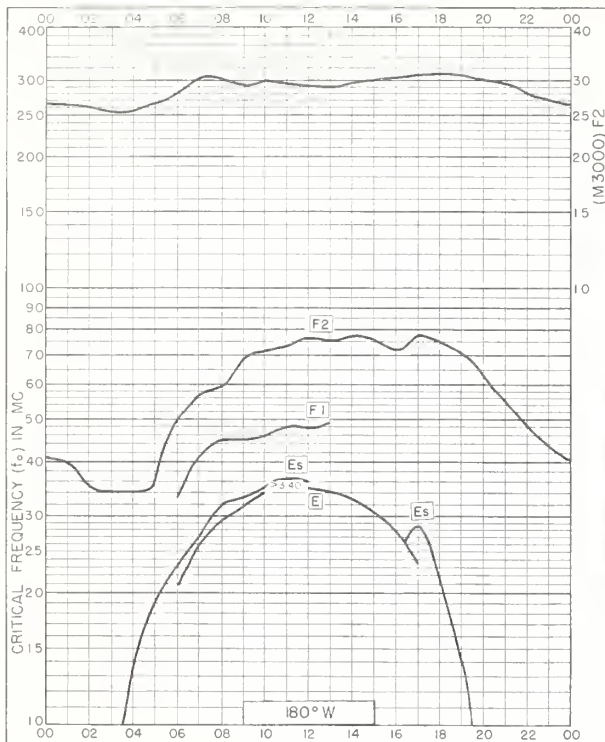


Fig. 13. ADAK, ALASKA
51.9°N, 176.6°W SEPTEMBER 1960

NBS 505

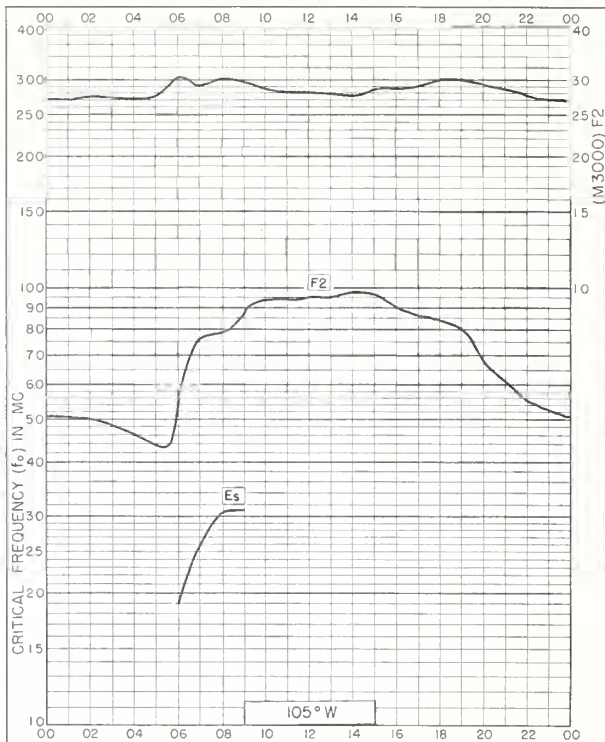


Fig. 14. BOULDER, COLORADO
40.0°N, 105.3°W SEPTEMBER 1960

NBS 505

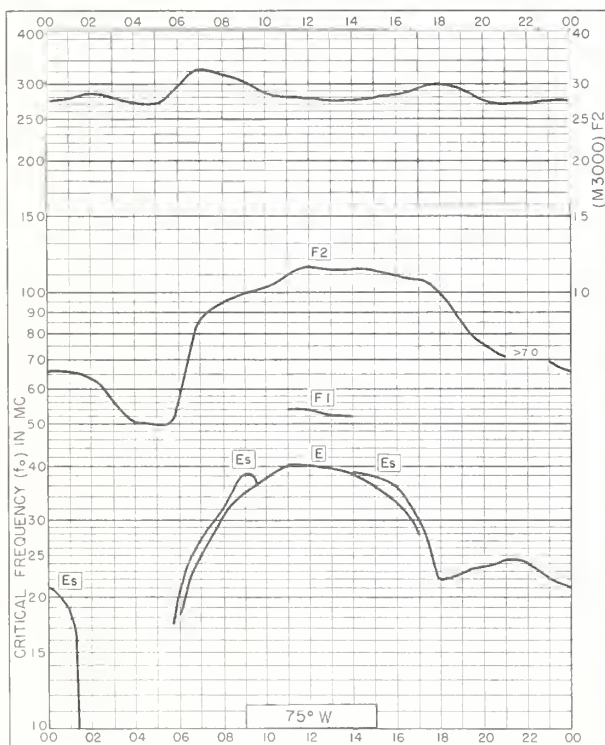


Fig. 15. GRAND BAHAMA I.
26.6°N, 78.2°W SEPTEMBER 1960

NBS 505



Fig. 16. MAUI, HAWAII
20.8°N, 156.5°W SEPTEMBER 1960

NBS 505

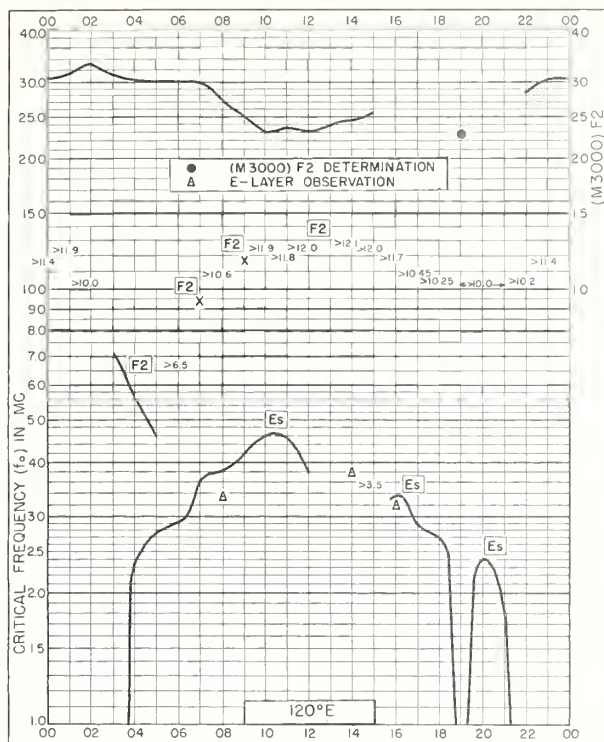


Fig. 17. BAGUIO, P. I.
16.4°N, 120.6°E SEPTEMBER 1960

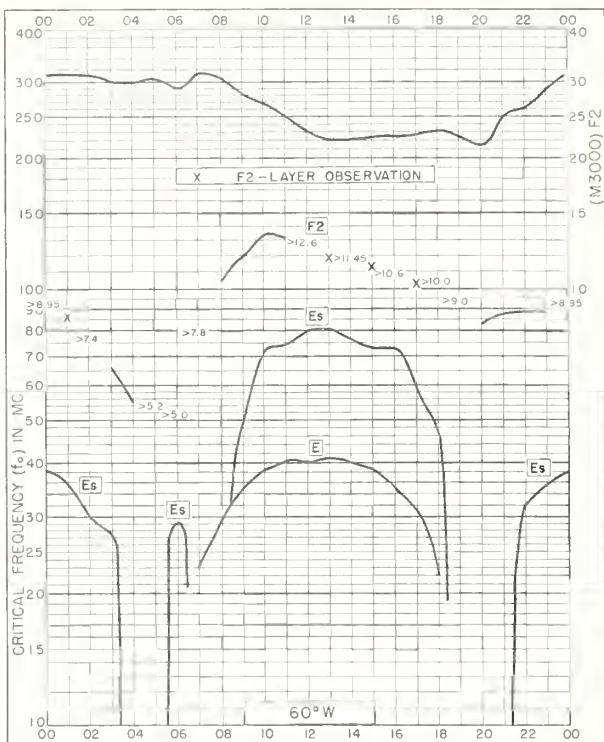


Fig. 18. La PAZ, BOLIVIA
16.5°S, 68.1°W SEPTEMBER 1960

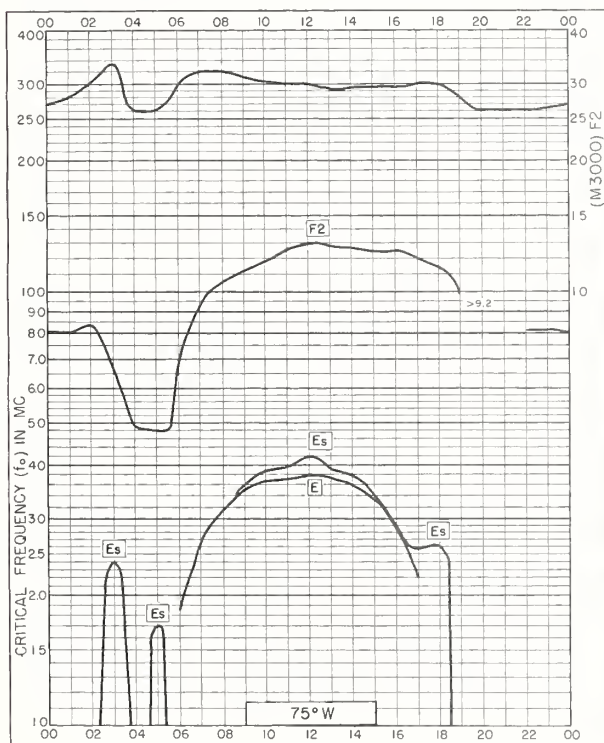


Fig. 19. CONCEPCION, CHILE
36.6°S, 73.0°W SEPTEMBER 1960



Fig. 20. POINT BARROW, ALASKA
71.3°N, 156.8°W AUGUST 1960

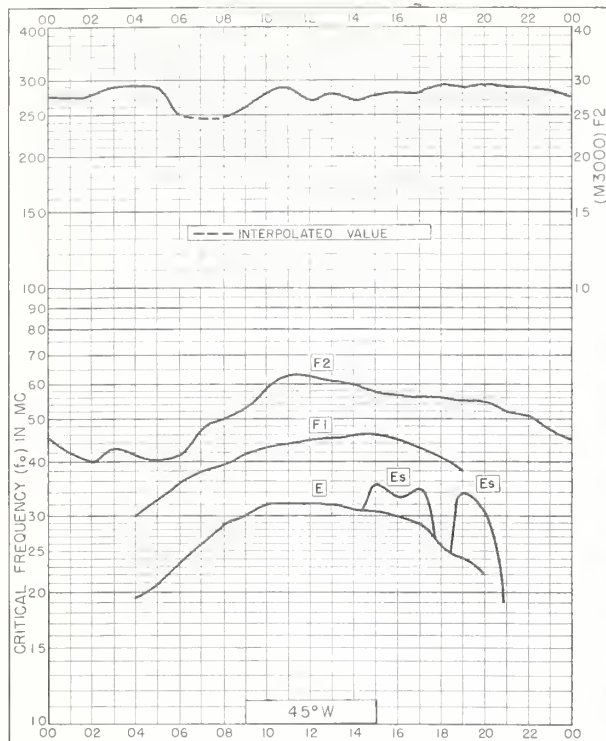


Fig 21. GODHAVN, GREENLAND
69.3°N, 53.5°W AUGUST 1960

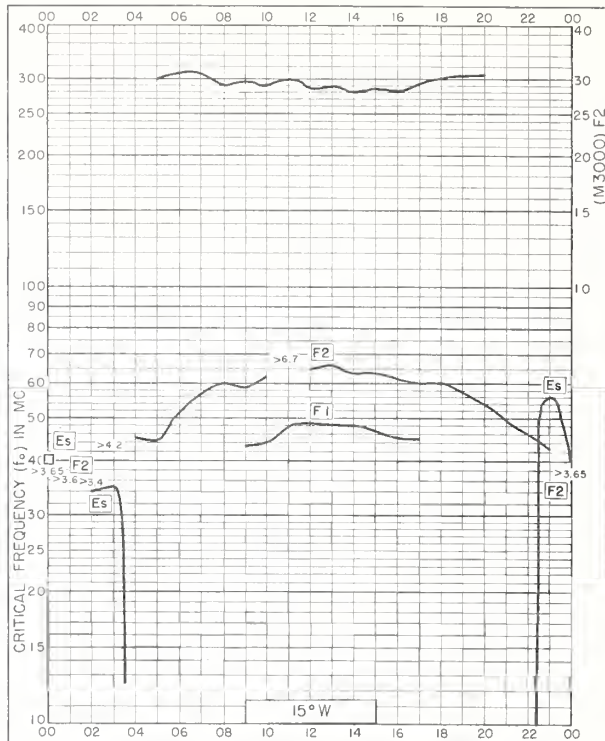


Fig 22. REYKJAVIK, ICELAND
64.1°N, 21.8°W AUGUST 1960

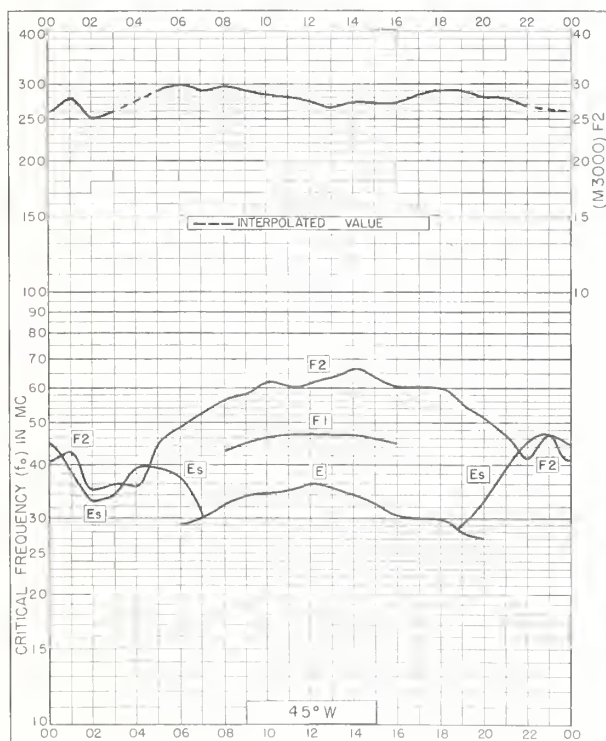


Fig 23. NARSSARSSUAQ, GREENLAND
61.2°N, 45.4°W AUGUST 1960

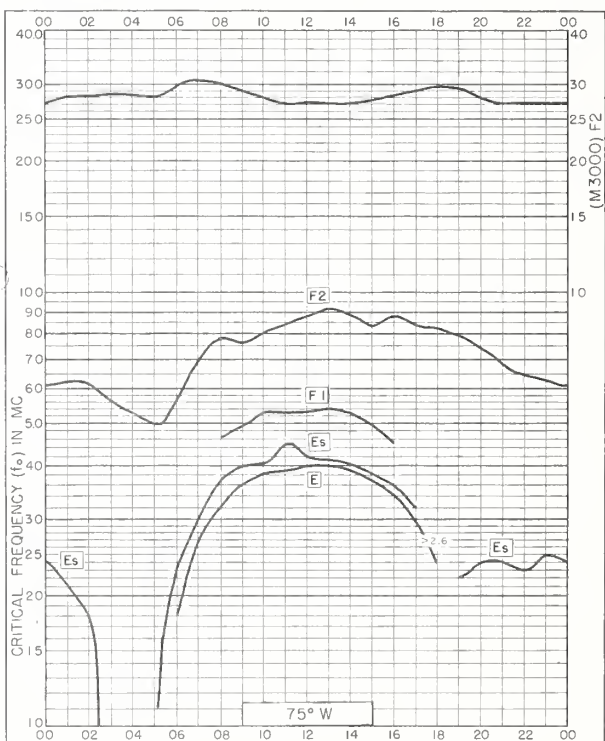


Fig 24. GRAND BAHAMA I.
26.6°N, 78.2°W AUGUST 1960

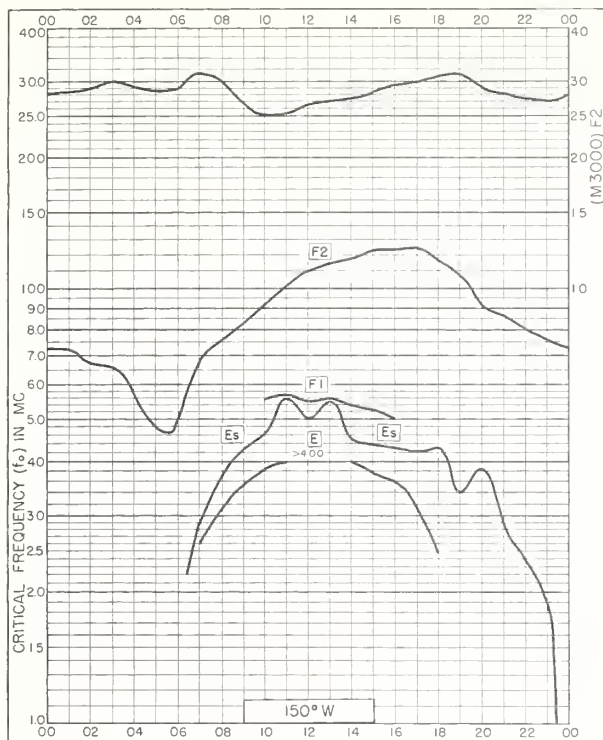


Fig. 25. MAUI, HAWAII
20.8°N, 156.5°W AUGUST 1960

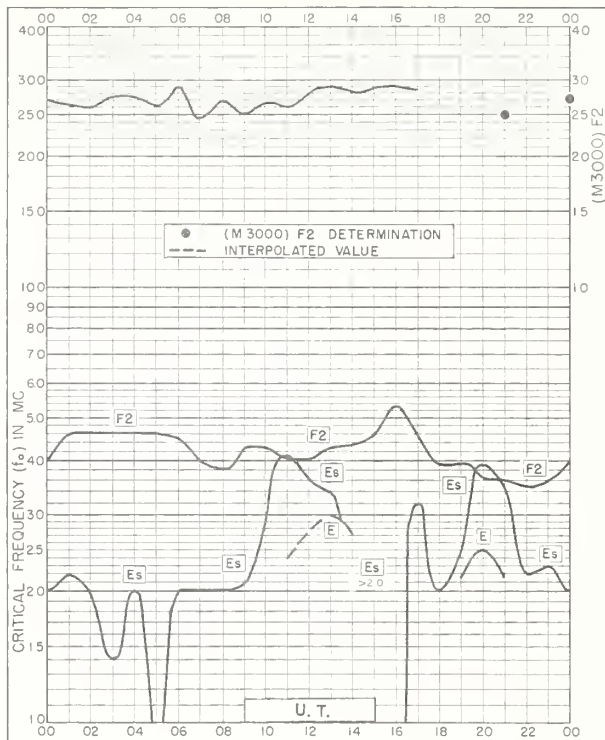


Fig. 26. POLE STATION
90.0°S AUGUST 1960

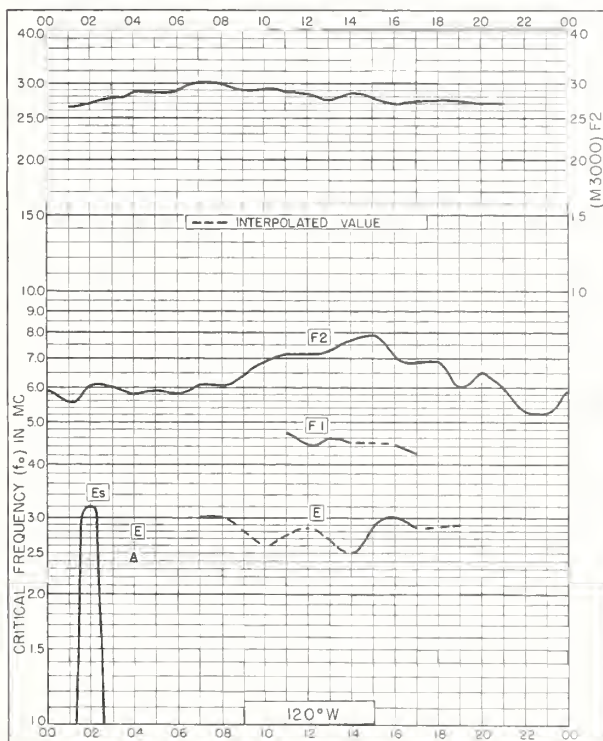


Fig. 27. BYRD STATION
80.0°S, 120.0°W FEBRUARY 1960

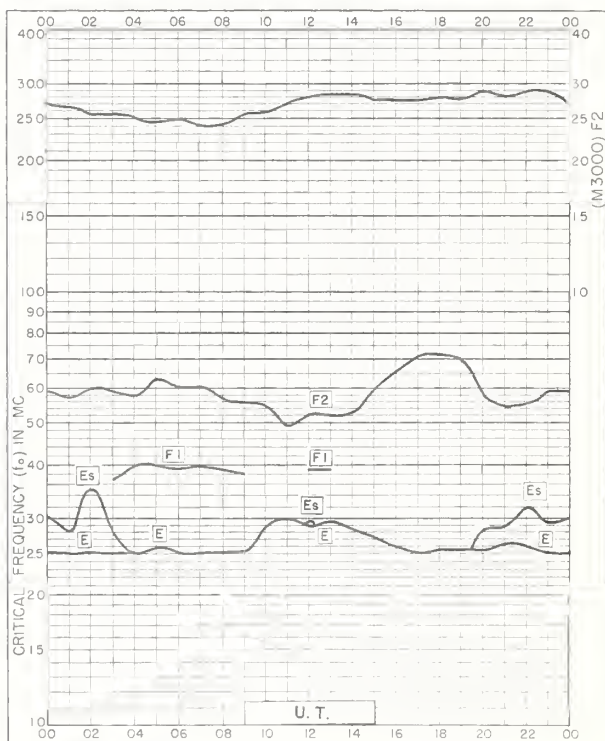


Fig. 28. POLE STATION
90.0°S FEBRUARY 1960

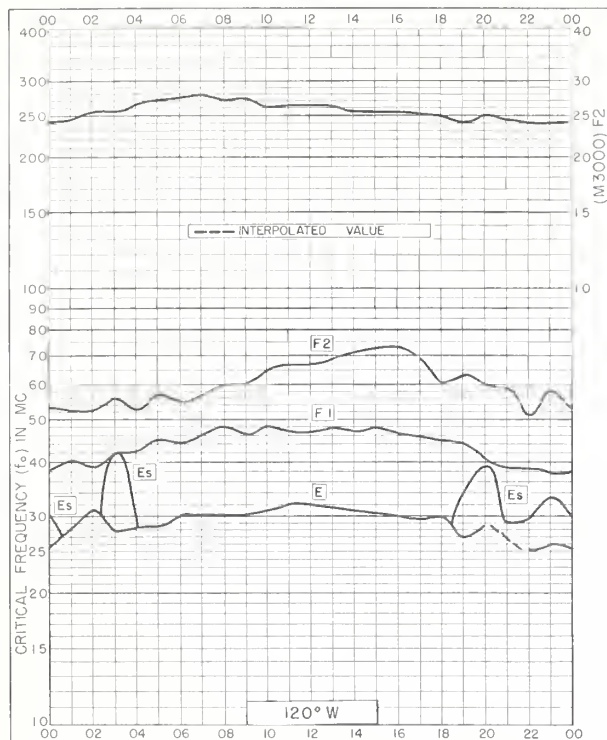


Fig. 29. BYRD STATION
80.0°S, 120.0°W JANUARY 1960



Fig. 30. GARCHY, FRANCE
47.3°N, 3.1°E DECEMBER 1959

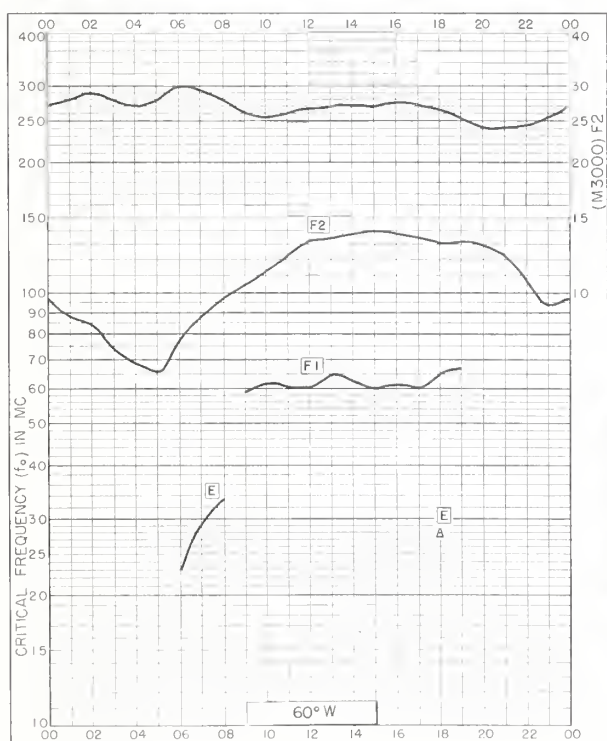


Fig. 31. TUCUMAN, ARGENTINA
26.9°S, 65.4°W DECEMBER 1959

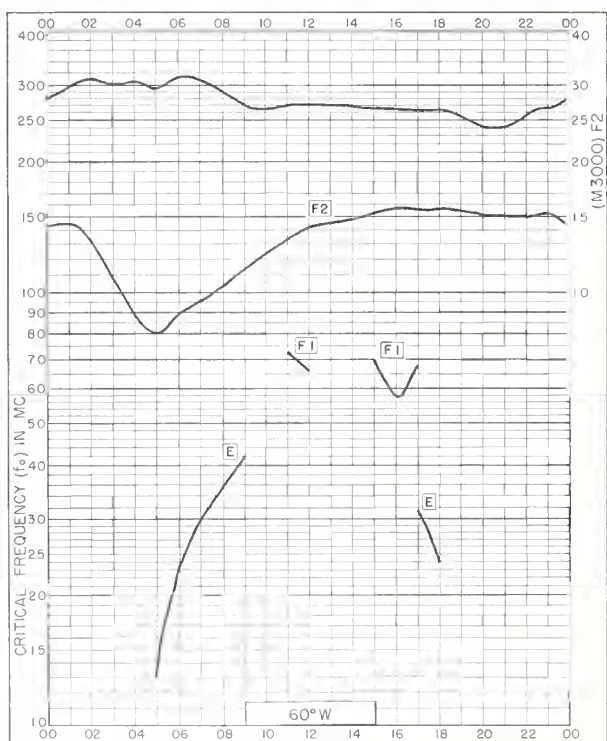


Fig. 32. TUCUMAN, ARGENTINA
26.9°S, 65.4°W NOVEMBER 1959

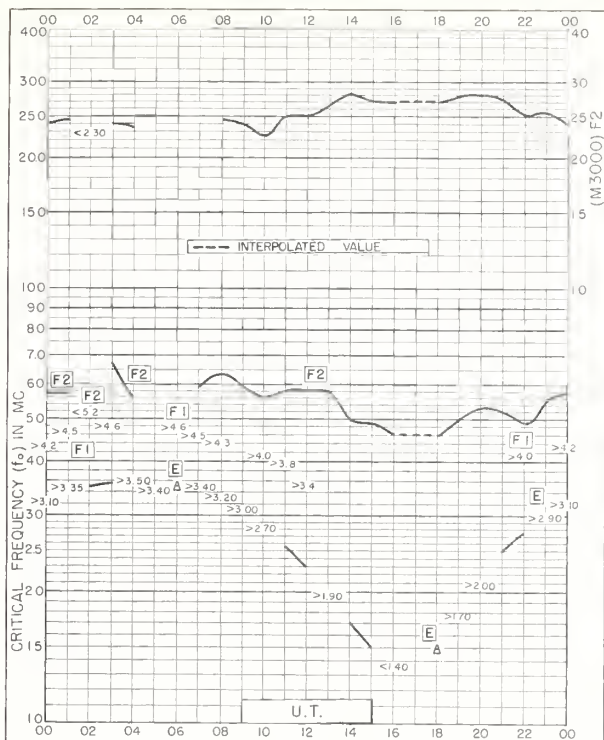


Fig. 33. WILKES STATION
66.9°S, 110.5°E NOVEMBER 1959

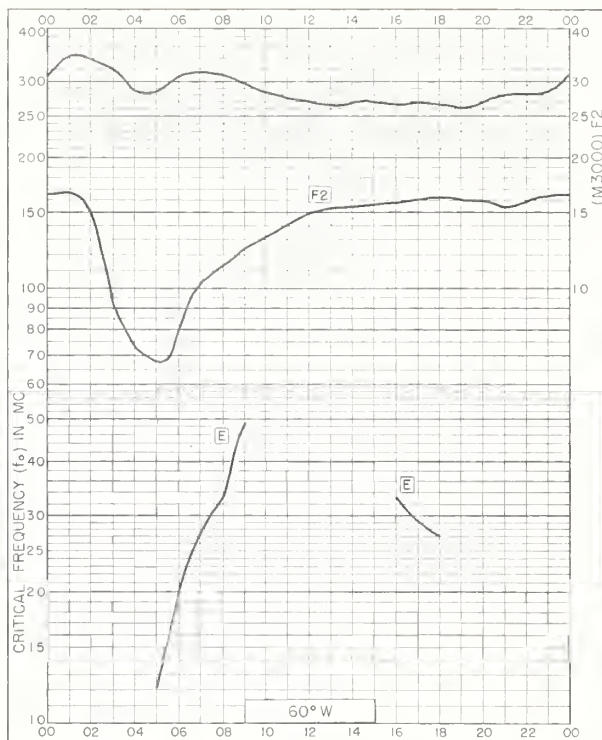


Fig. 34. TUCUMAN, ARGENTINA
26.9°S, 65.4°W OCTOBER 1959



Fig. 35. TUCUMAN, ARGENTINA
26.9°S, 65.4°W SEPTEMBER 1959

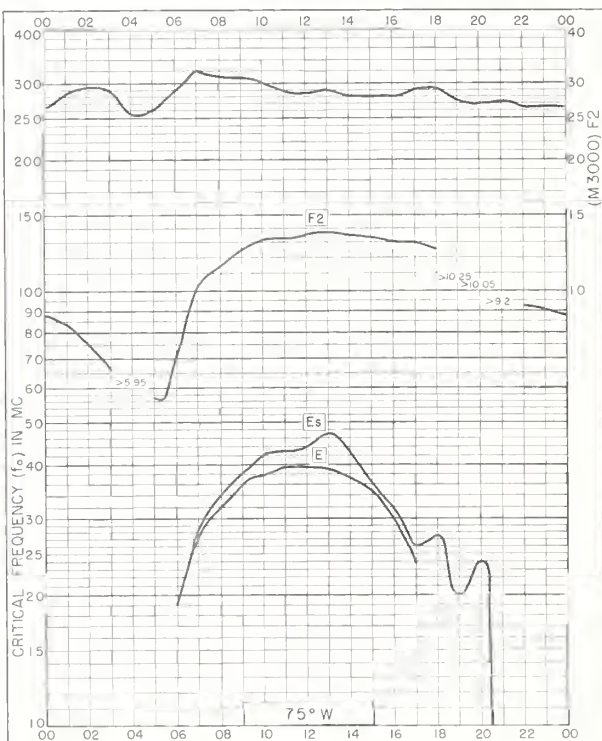


Fig. 36. CONCEPCION, CHILE
36.6°S, 73.0°W SEPTEMBER 1959

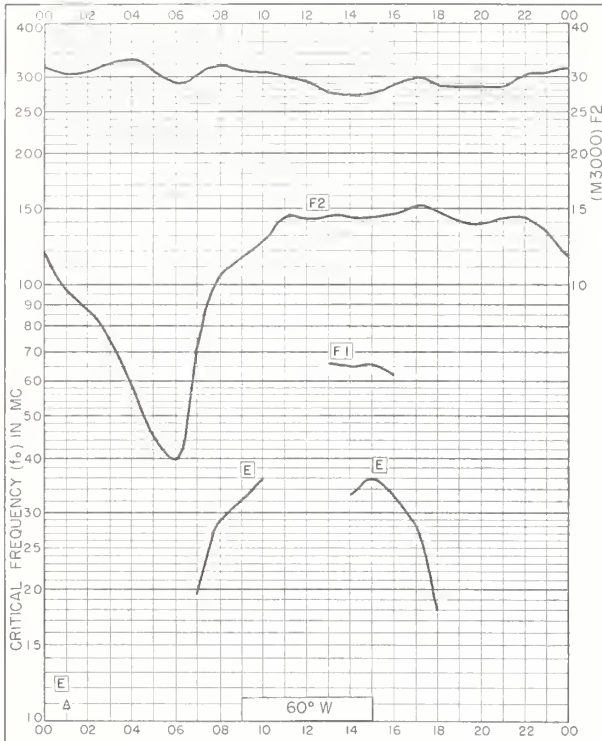


Fig. 37. TUCUMAN, ARGENTINA
26.9°S, 65.4°W AUGUST 1959

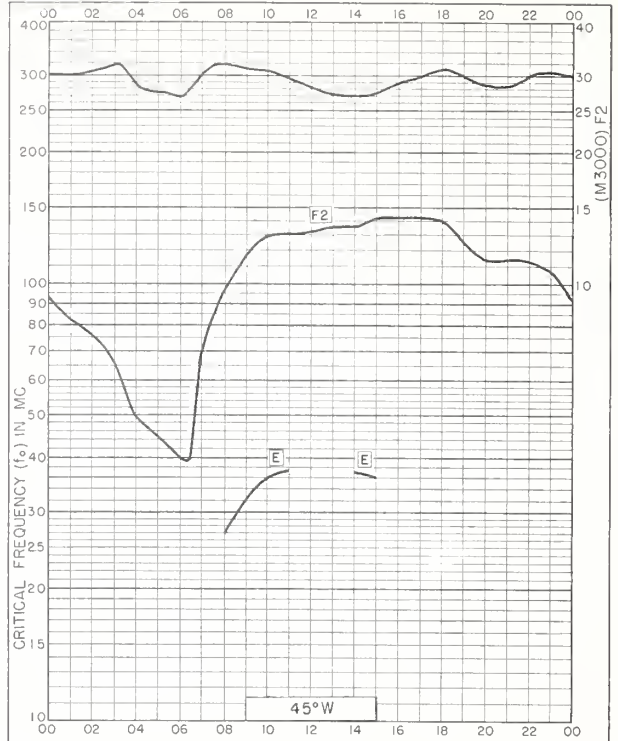


Fig. 38. SAO PAULO, BRAZIL
23.5°S, 46.5°W JULY 1959

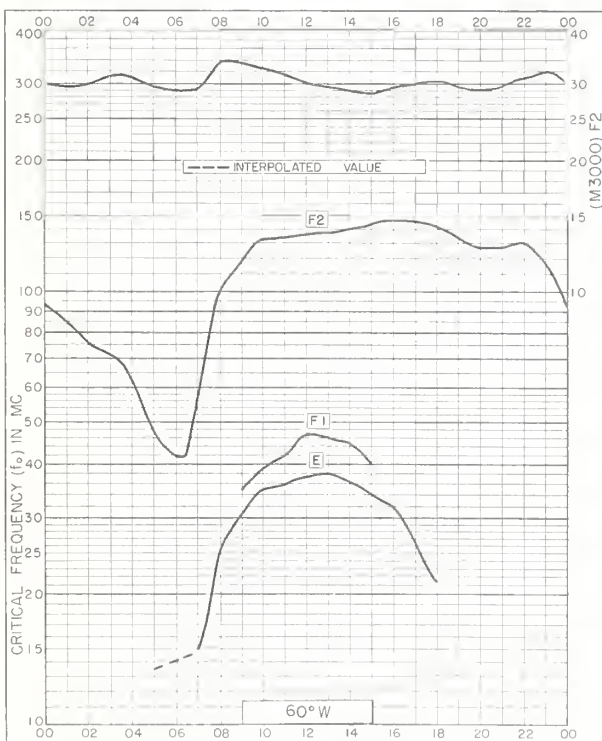


Fig. 39. TUCUMAN, ARGENTINA
26.9°S, 65.4°W JULY 1959

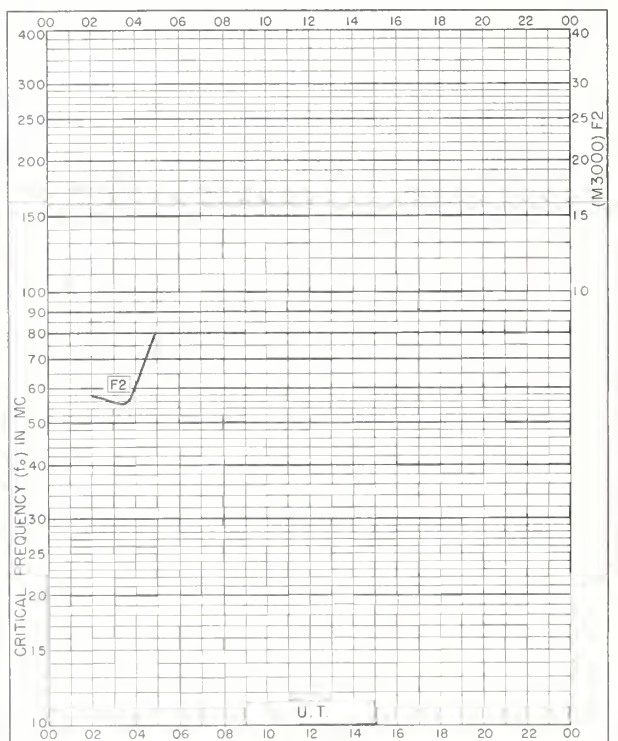


Fig. 40. WILKES STATION
66.3°S, 110.5°E JULY 1959



Fig. 41. FREIBURG, GERMANY
48.1°N, 7.6°E

JUNE 1959

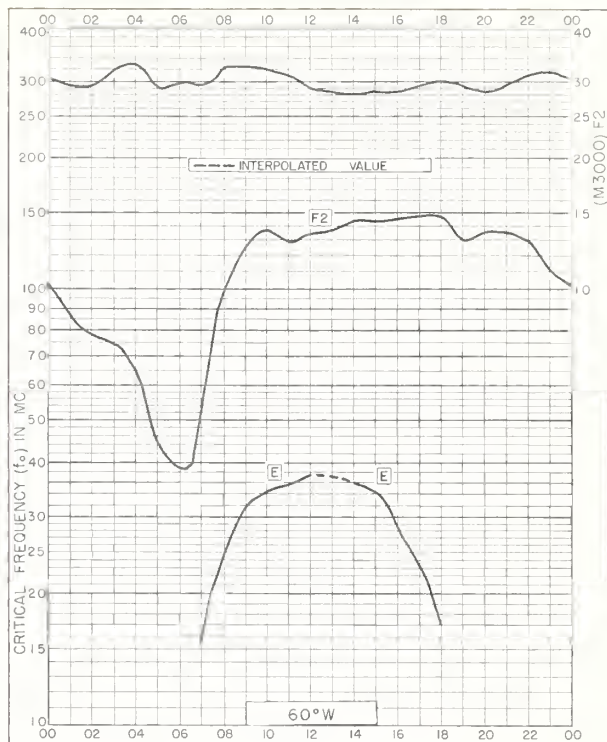


Fig. 42. TUCUMAN, ARGENTINA
26.9°S, 65.4°W

JUNE 1959

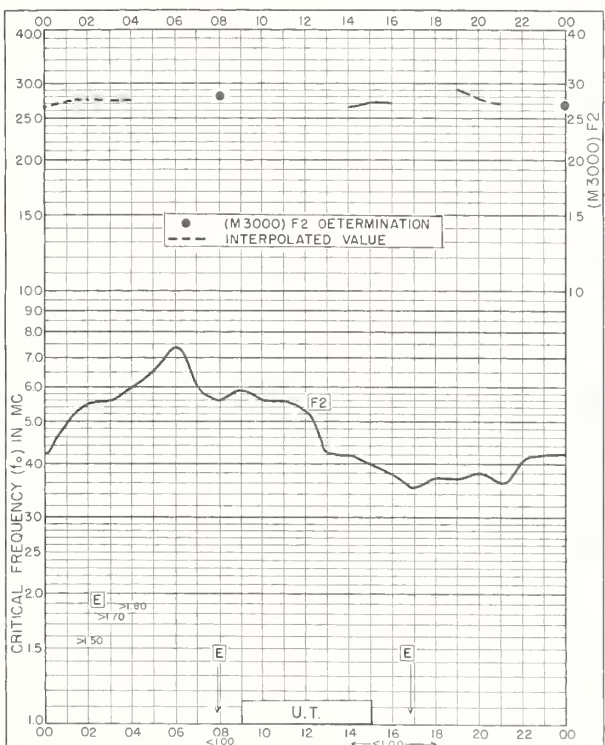


Fig. 43. WILKES STATION
66.3°S, 110.5°E

JUNE 1959

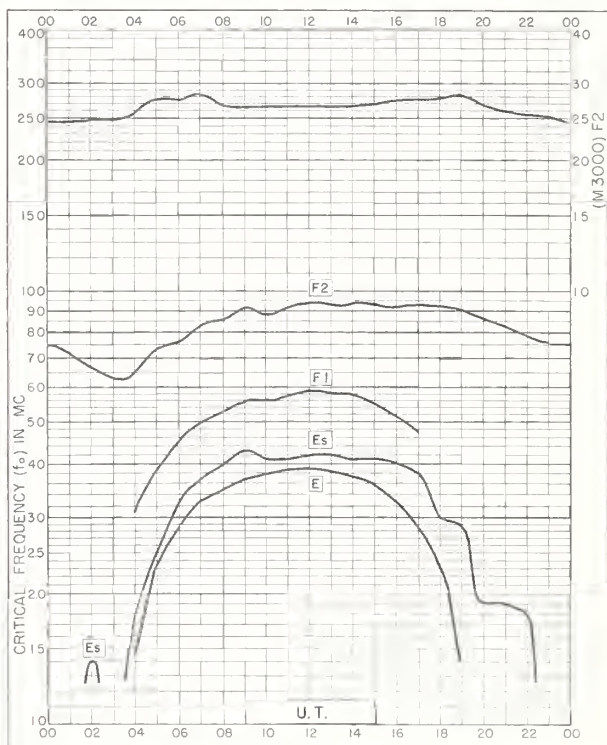


Fig. 44. FREIBURG, GERMANY
48.1°N, 7.6°E

MAY 1959

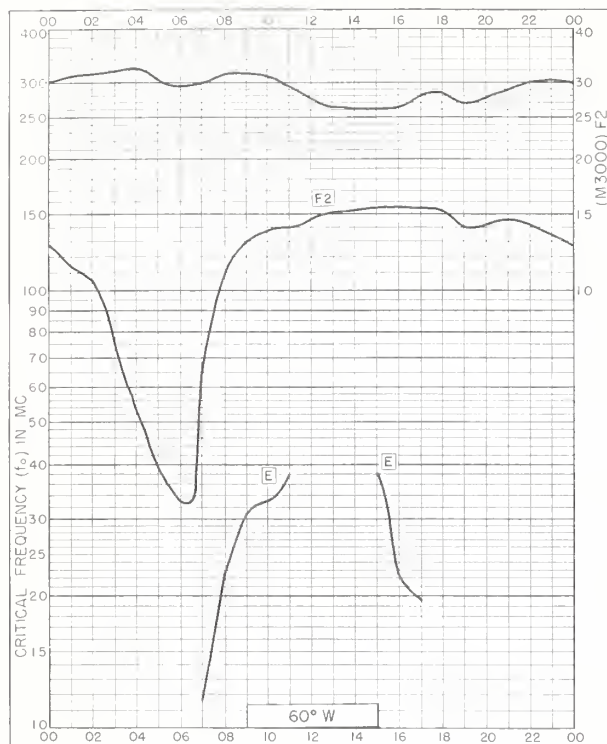


Fig. 45. TUCUMAN, ARGENTINA
26.9°S, 65.4°W

MAY 1959

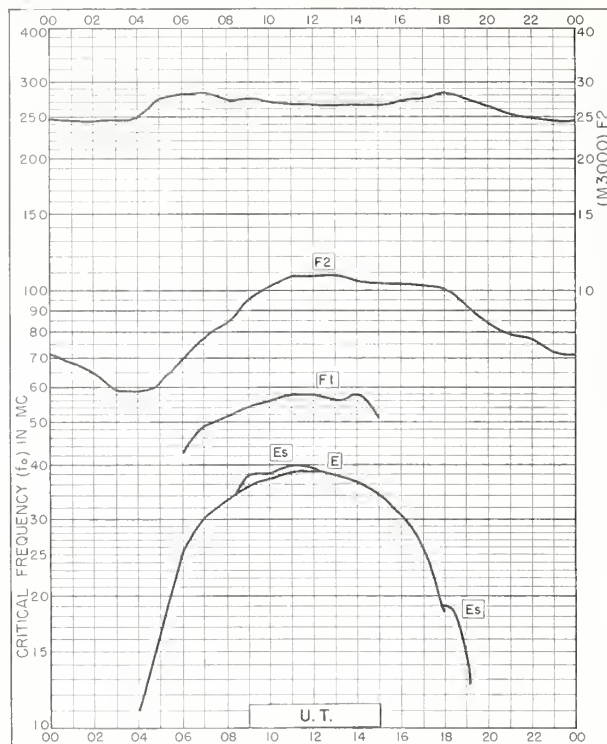


Fig. 46. FREIBURG, GERMANY
48.1°N, 7.6°E

APRIL 1959

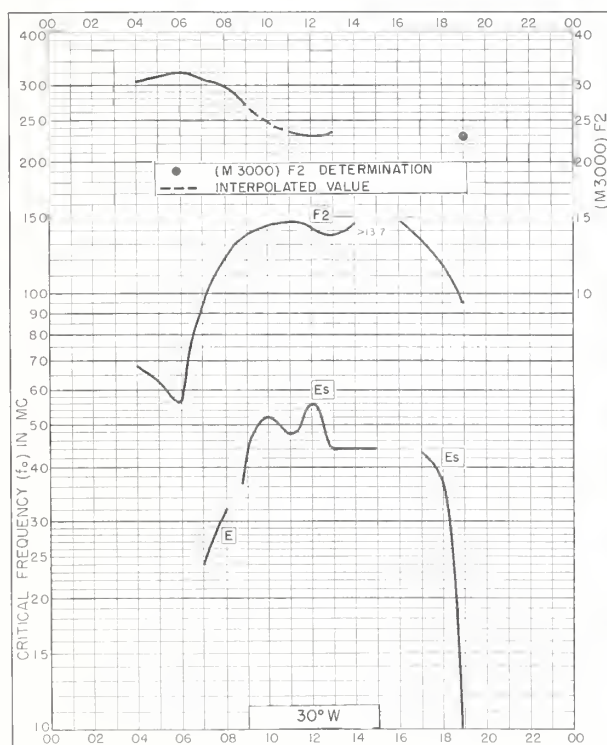


Fig. 47. NATAL, BRAZIL
5.3°S, 35.1°W

APRIL 1959

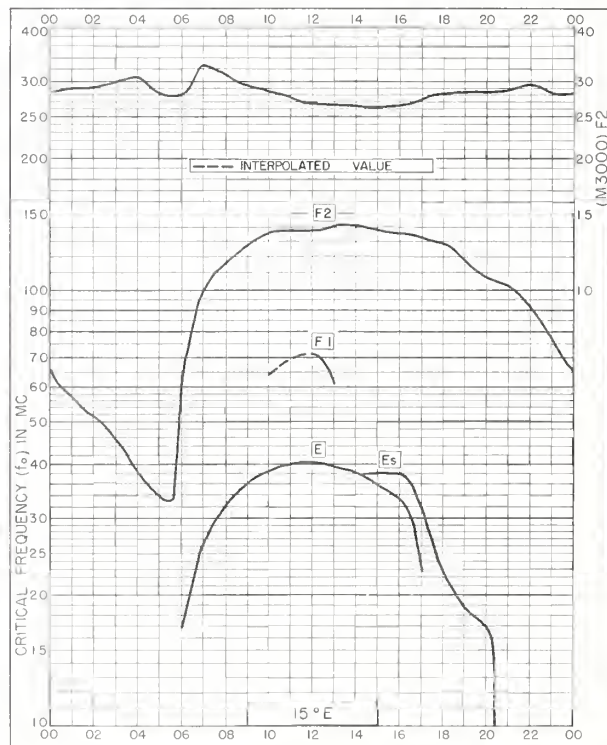


Fig. 48. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E

APRIL 1959

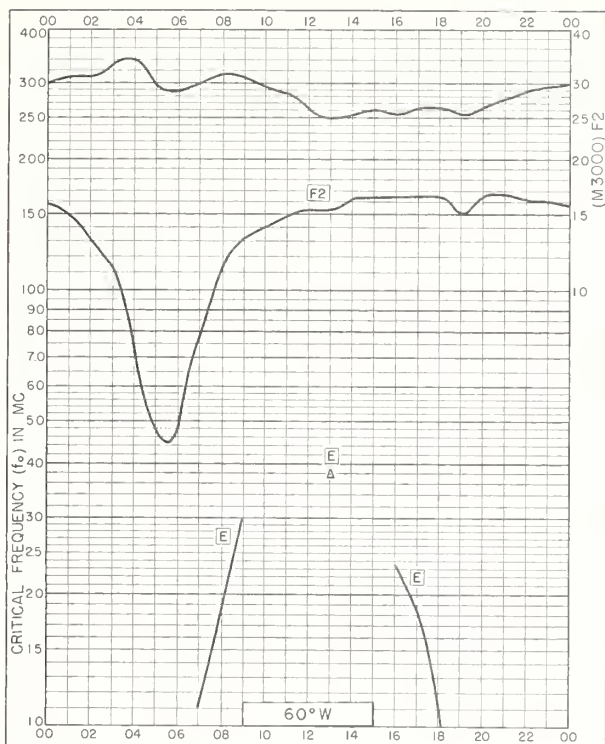


Fig. 49. TUCUMAN, ARGENTINA
26.9°S, 65.4°W

APRIL 1959

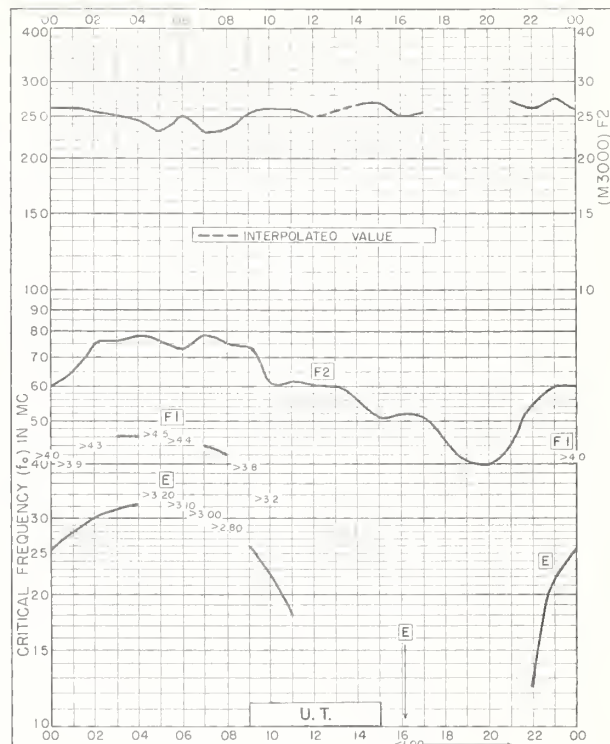


Fig. 50. WILKES STATION
66.9°S, 110.5°E

MARCH 1959

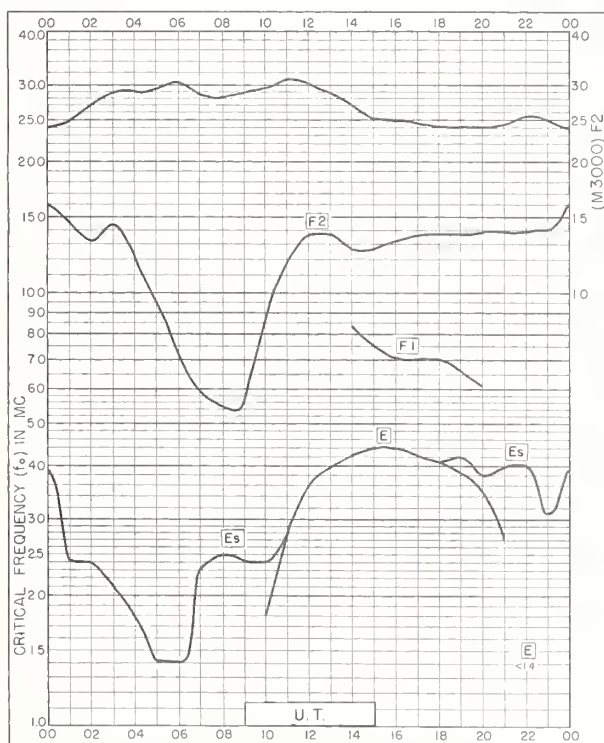


Fig. 51. PARAMARIBO, SURINAM
5.8°N, 55.2°W

JANUARY 1959

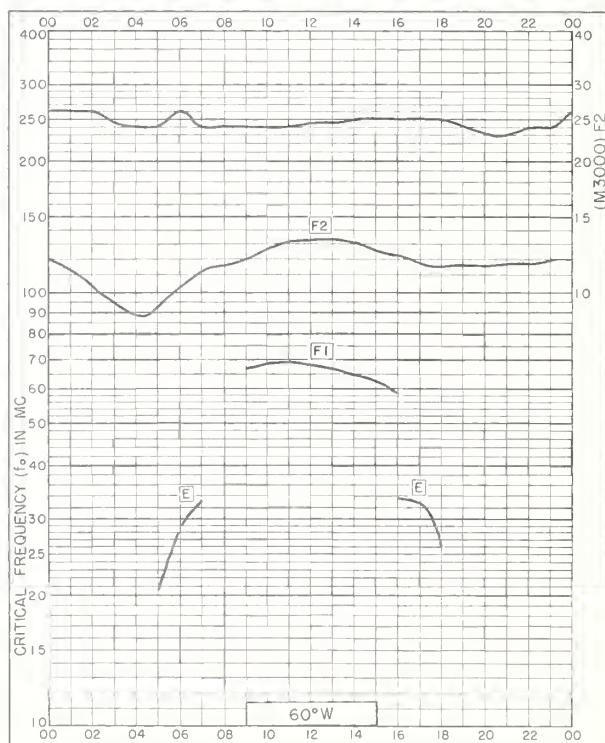


Fig. 52. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W

NOVEMBER 1958

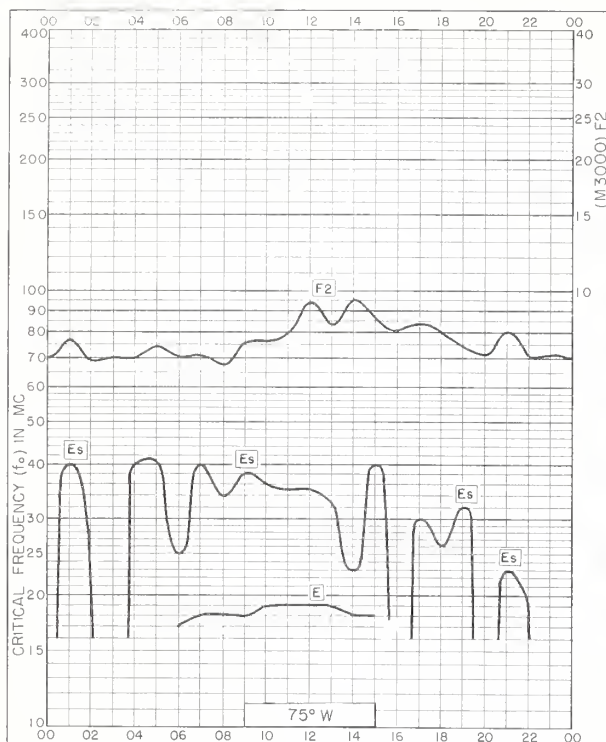


Fig 53. ALERT, CANADA
82.6°N, 62.6°W
OCTOBER 1958

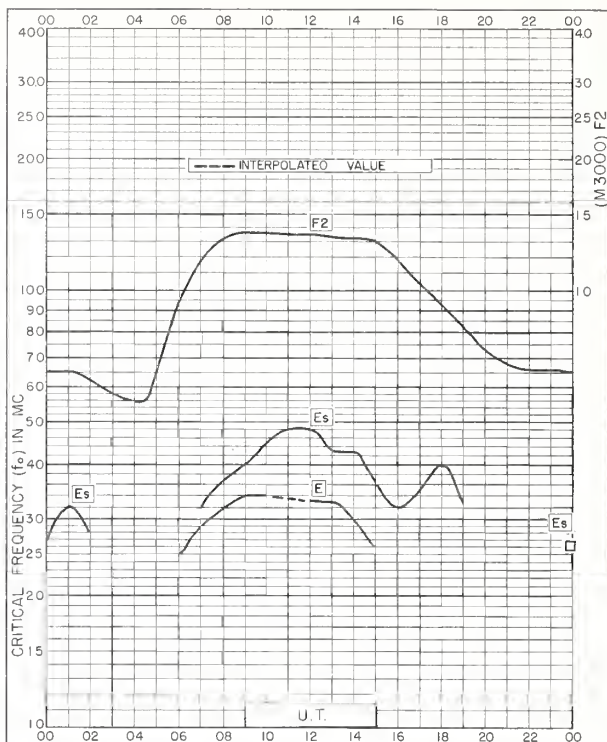


Fig 54. BUDAPEST, HUNGARY
47.4°N, 19.2°E
OCTOBER 1958

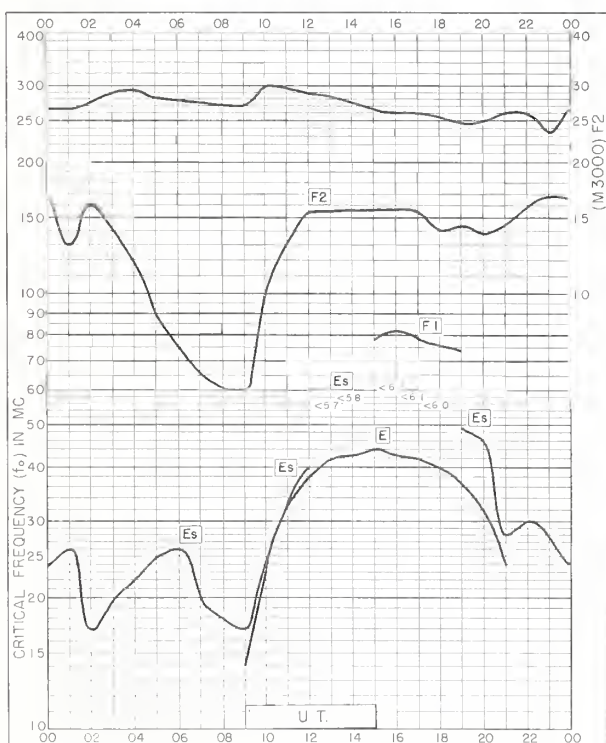


Fig 55. PARAMARIBO, SURINAM
5.8°N, 55.2°W
OCTOBER 1958

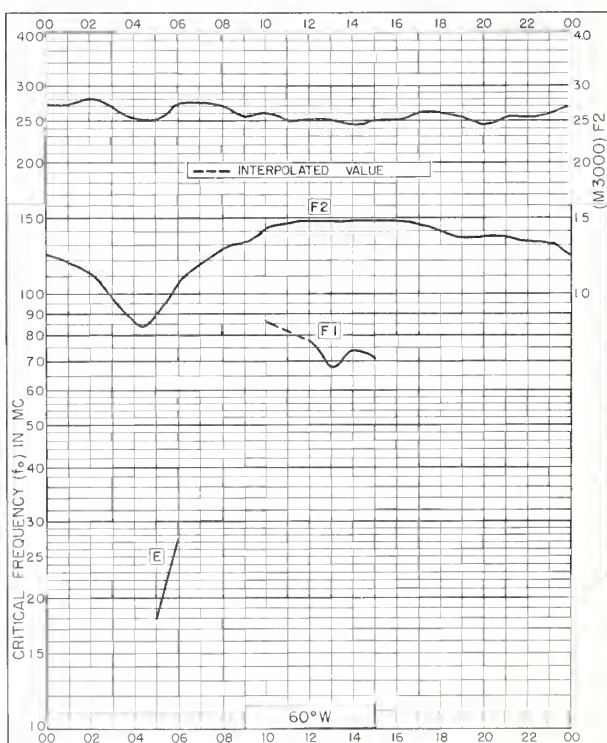


Fig 56. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W
OCTOBER 1958

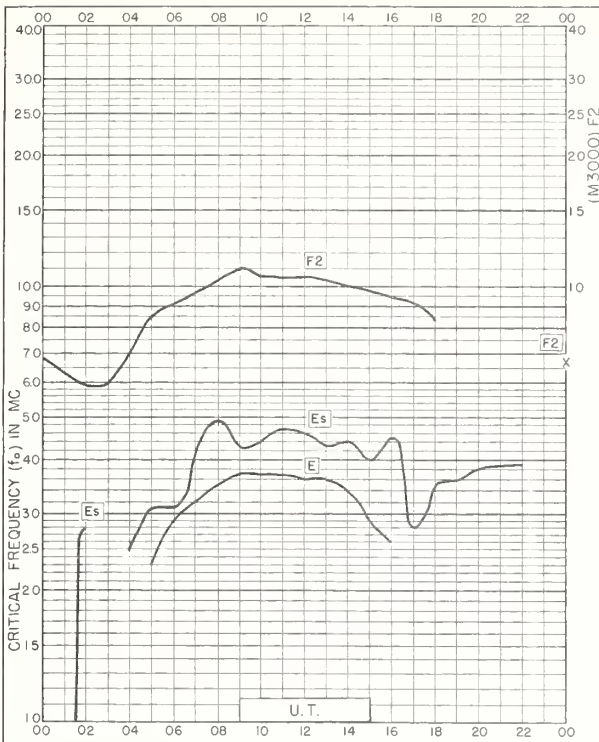


Fig. 57. BUDAPEST, HUNGARY
47.4°N, 19.2°E SEPTEMBER 1958

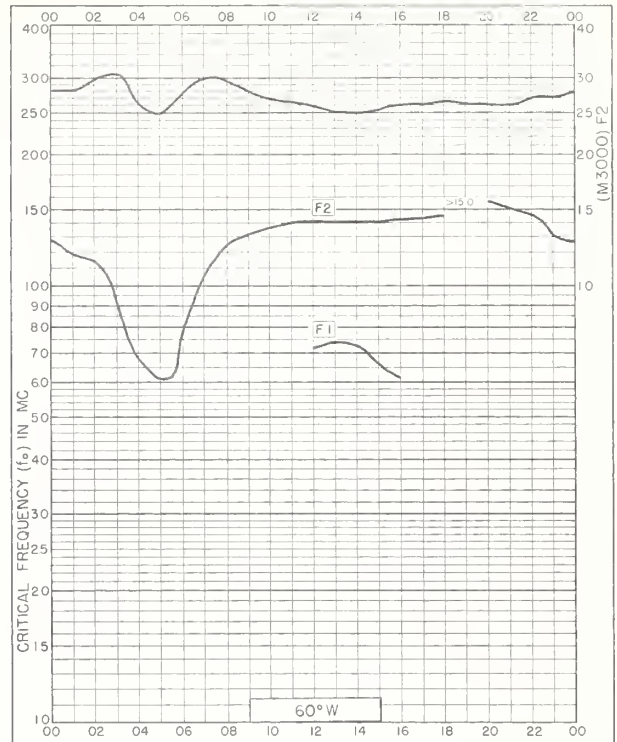


Fig. 58. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W SEPTEMBER 1958

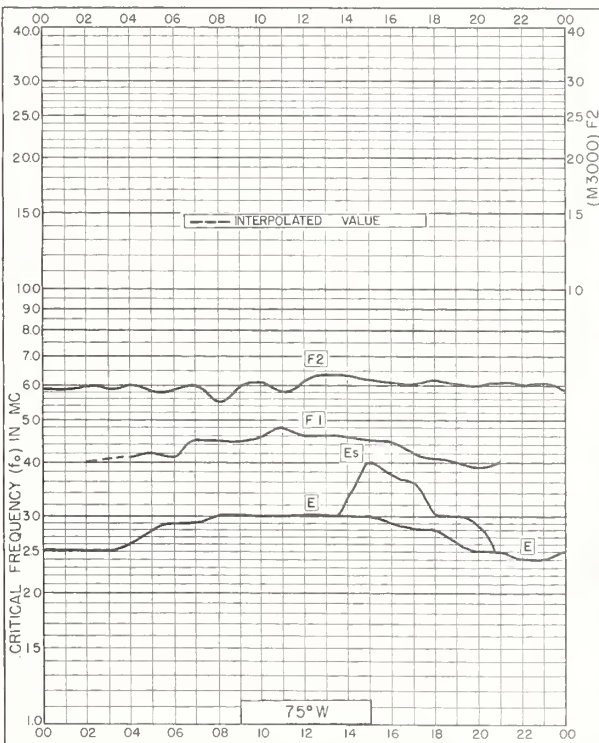


Fig. 59. ALERT, CANADA
82.6°N, 62.6°W AUGUST 1958

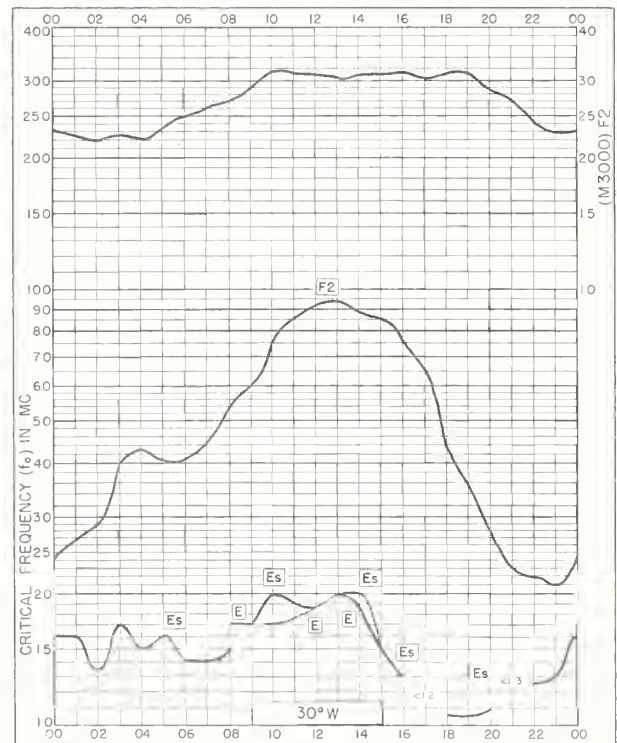


Fig. 60. HALLEY BAY
75.5°S, 26.6°W AUGUST 1958

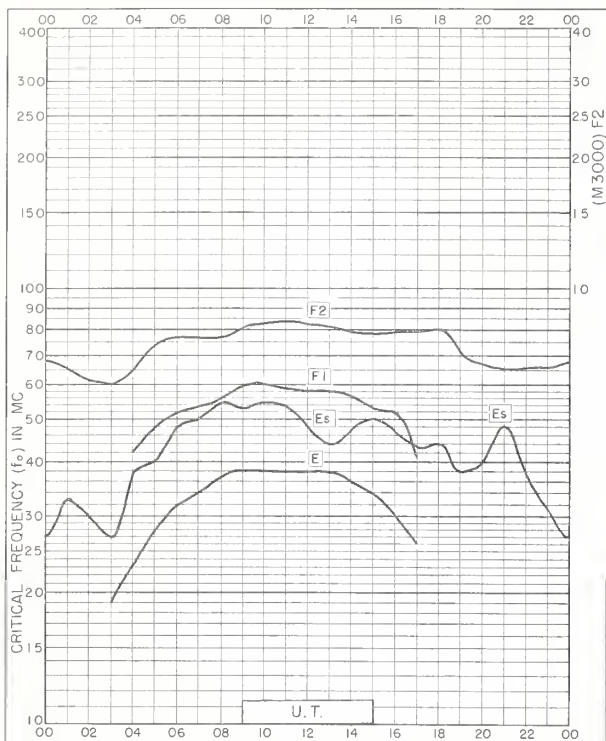


Fig. 61. BUDAPEST, HUNGARY
47.4°N, 19.2°E

JULY 1958

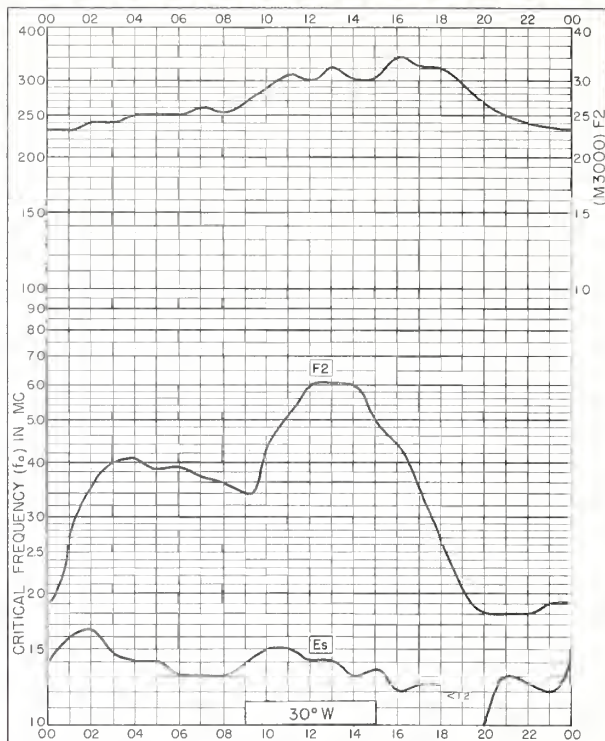


Fig. 62. HALLEY BAY
75.5°S, 26.6°W

JULY 1958

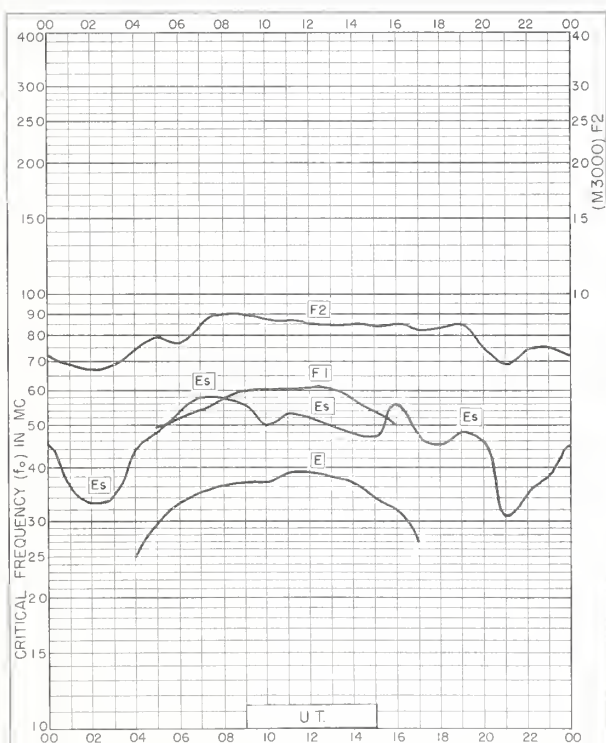


Fig. 63. BUDAPEST, HUNGARY
47.4°N, 19.2°E

JUNE 1958

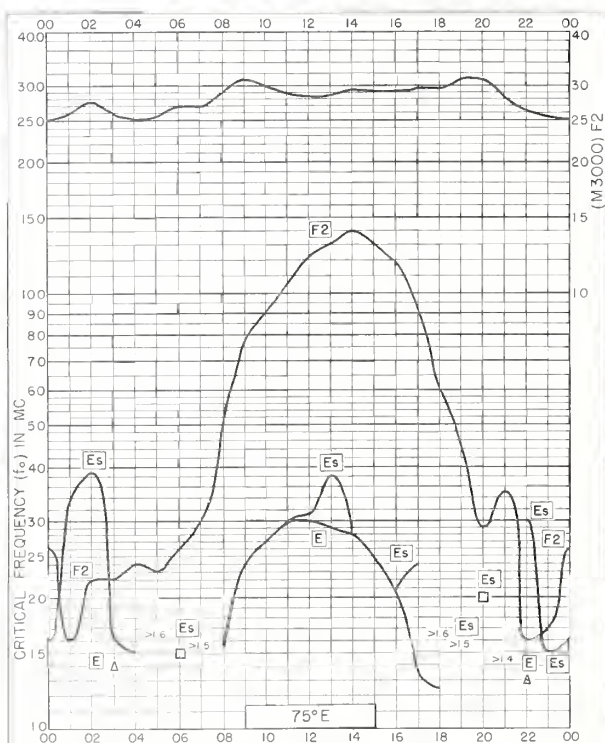


Fig. 64. KERGUELEN I.
49.4°S, 70.3°E

JUNE 1958

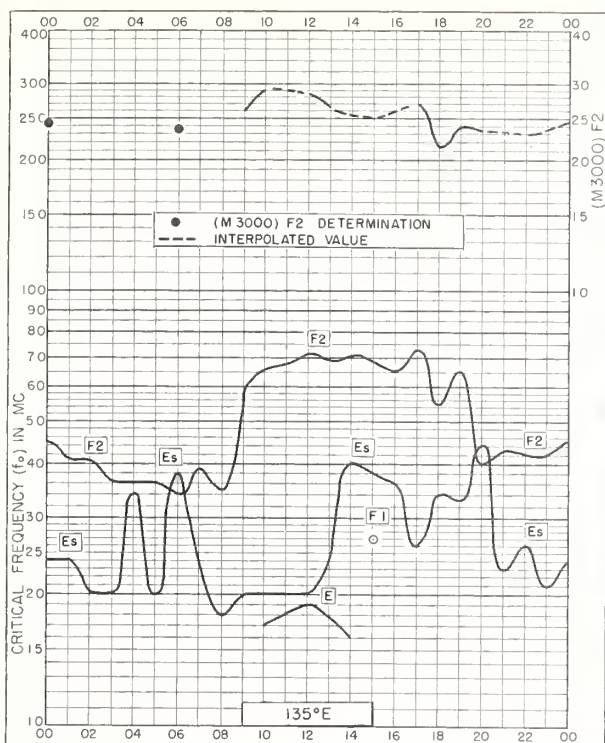


Fig. 65. TERRE ADELIE
66.7°S, 140.0°E

JUNE 1958

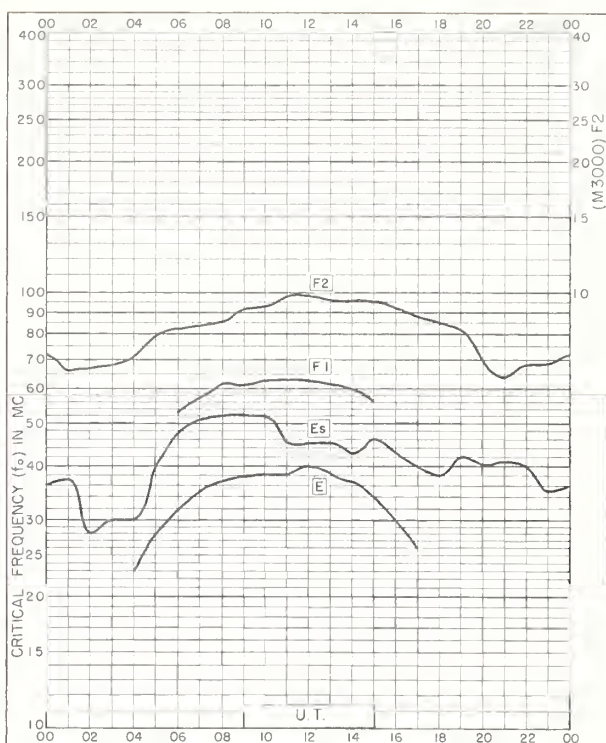


Fig. 66. BUDAPEST, HUNGARY
47.4°N, 19.2°E

MAY 1958

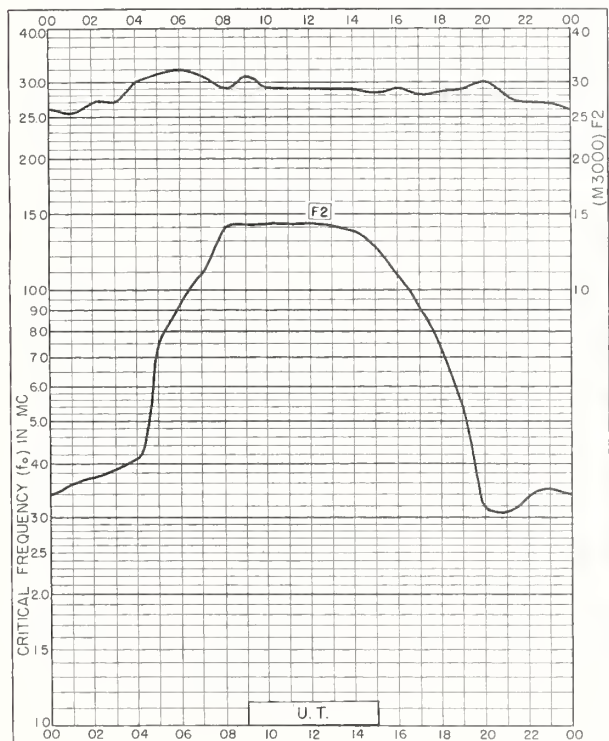


Fig. 67. MARION I.
64.6°S, 37.9°E

MAY 1958

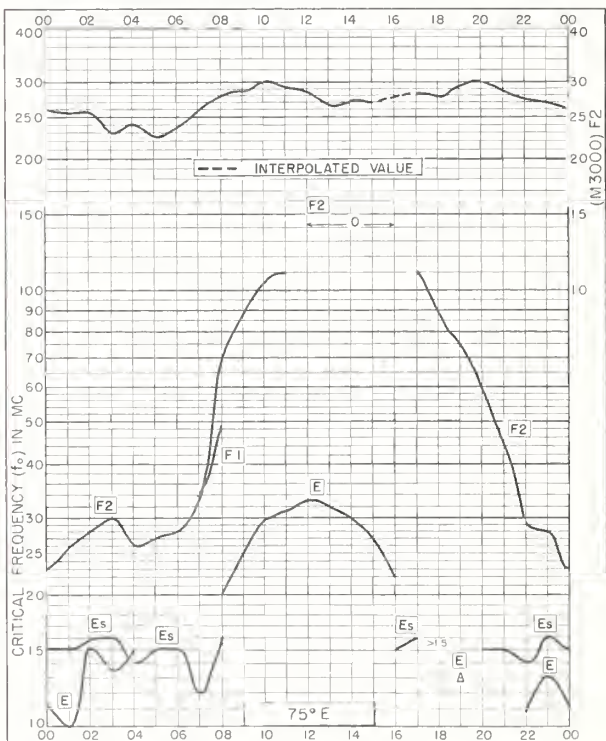


Fig. 68. KERGUELEN I.
49.4°S, 70.3°E

MAY 1958

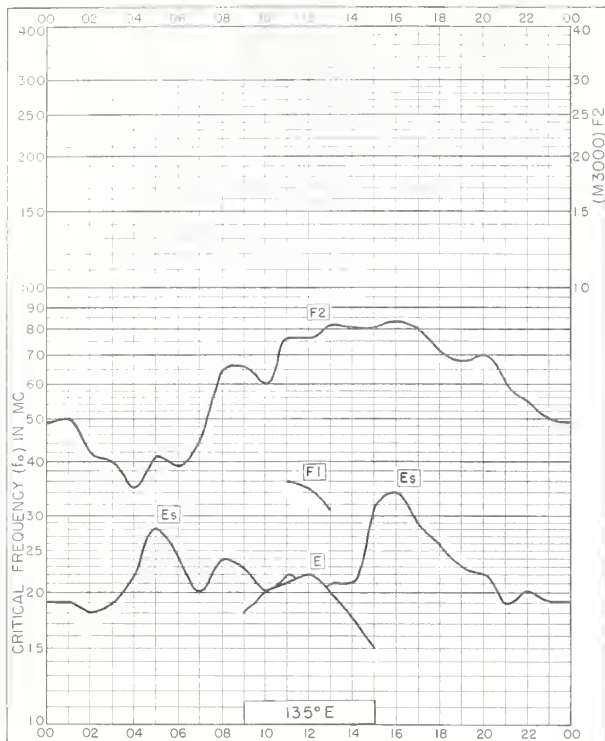


Fig. 69. TERRE ADELIE
66.7°S, 140.0°E

MAY 1958

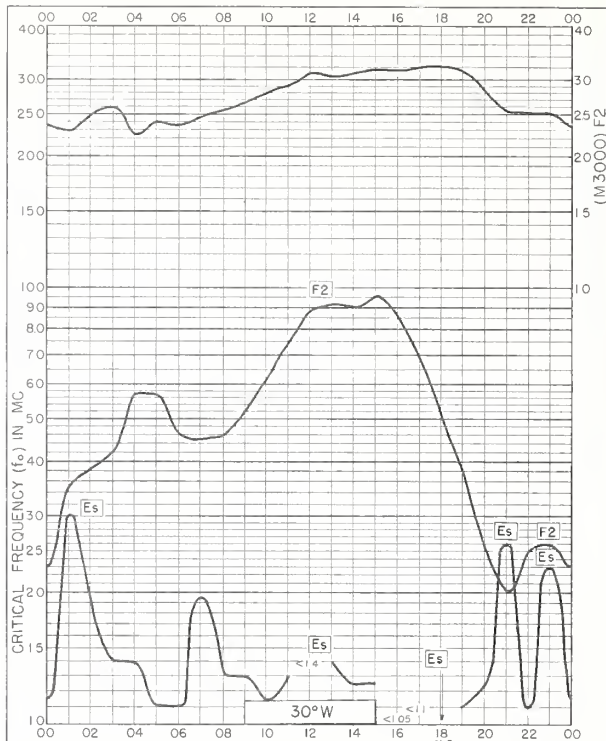


Fig. 70. HALLEY BAY
75.5°S, 26.6°W

MAY 1958

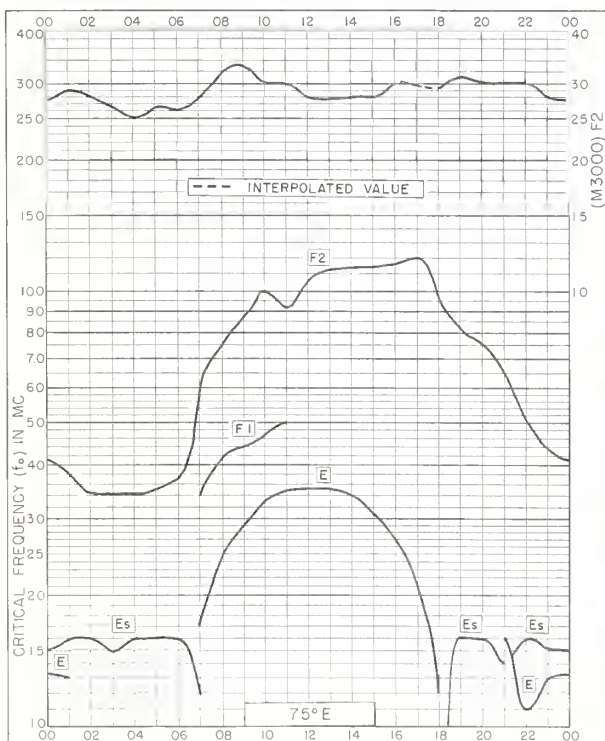


Fig. 71. KERGUELEN I.
49.4°S, 70.3°E

APRIL 1958

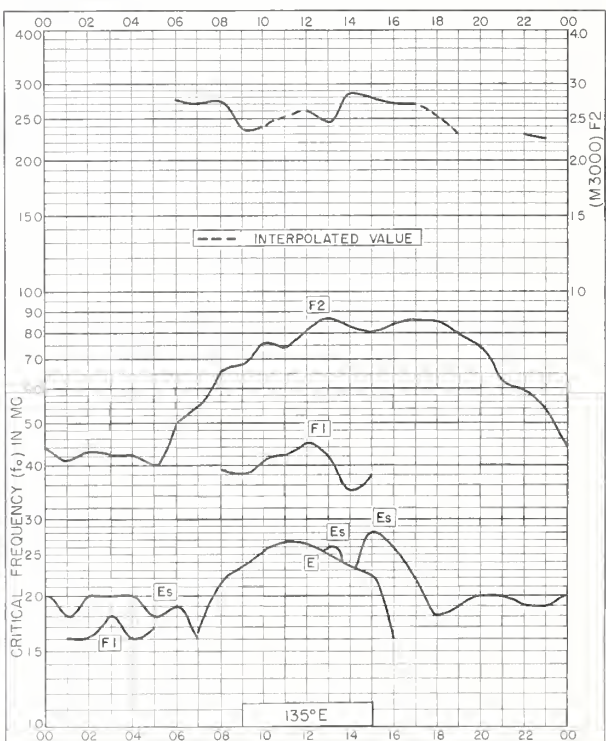


Fig. 72. TERRE ADELIE
66.7°S, 140.0°E

APRIL 1958

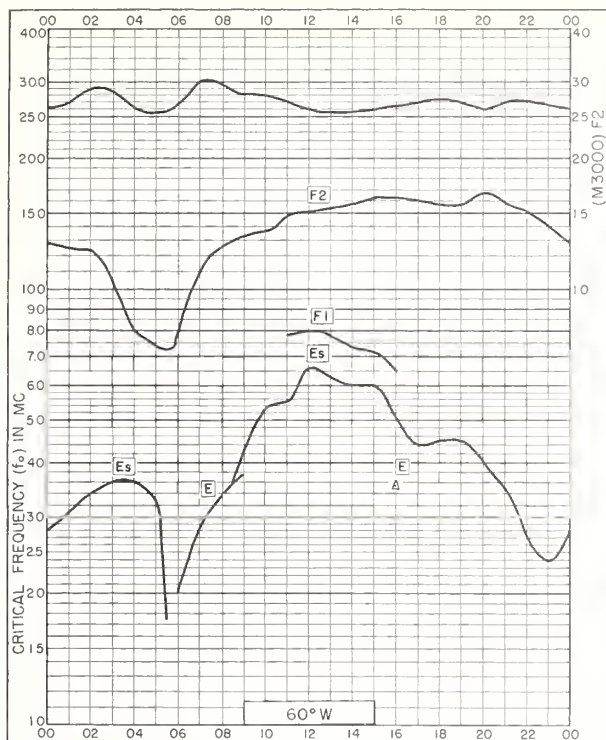


Fig. 73. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W MARCH 1958

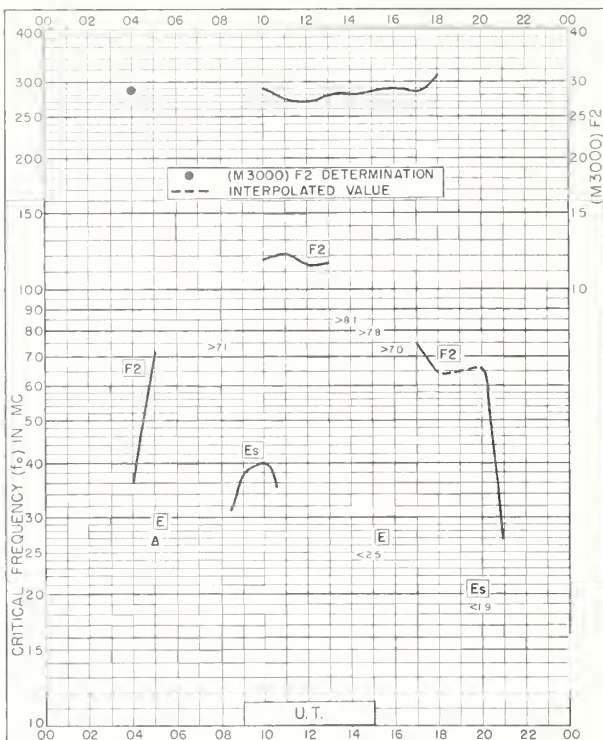


Fig. 74. MARION I.
46.8°S, 37.9°E MARCH 1958

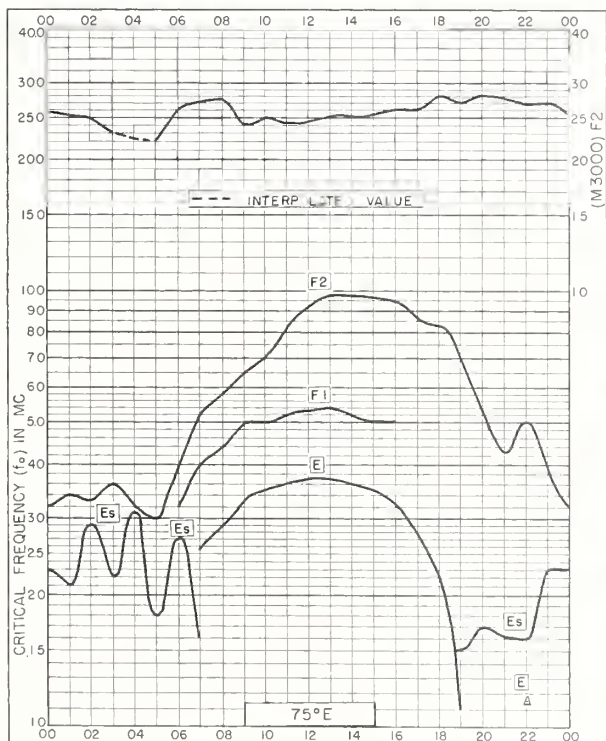


Fig. 75. KERGUÉLEN I.
49.4°S, 70.3°E MARCH 1958

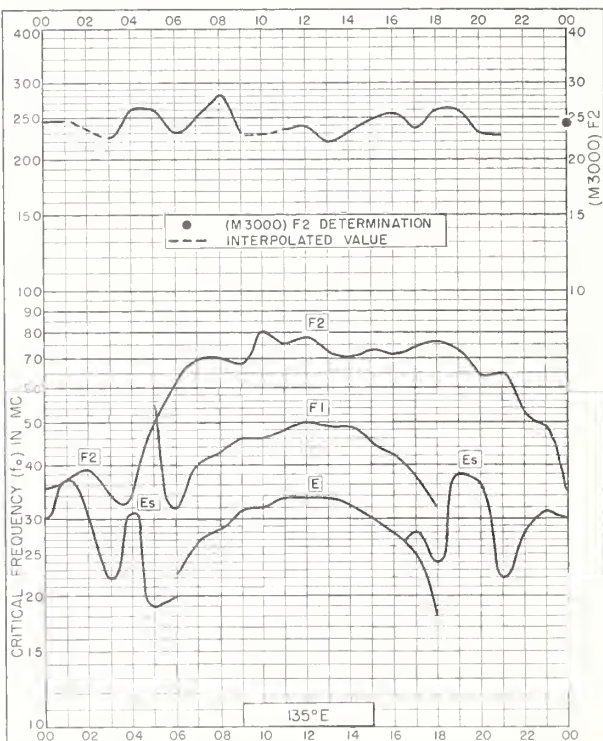


Fig. 76. TERRE ADELIE
66.7°S, 140.0°E MARCH 1958

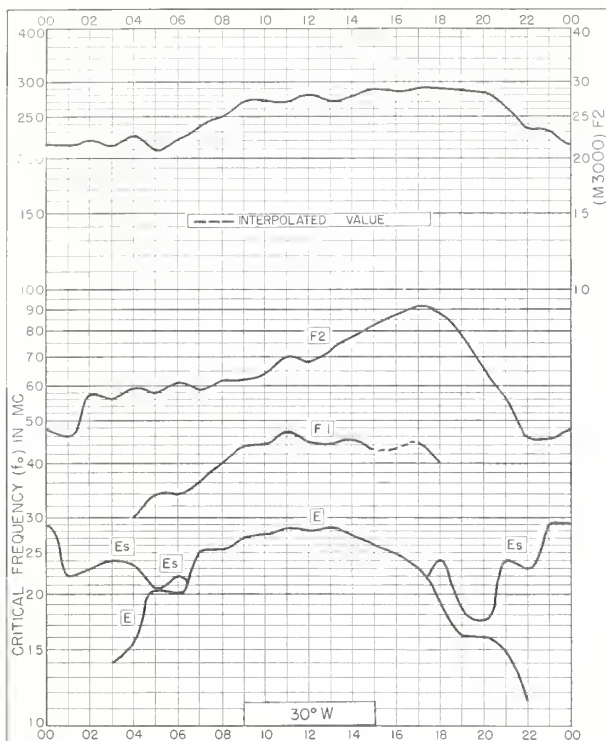


Fig. 77. HALLEY BAY
75.5°S, 26.6°W MARCH 1958

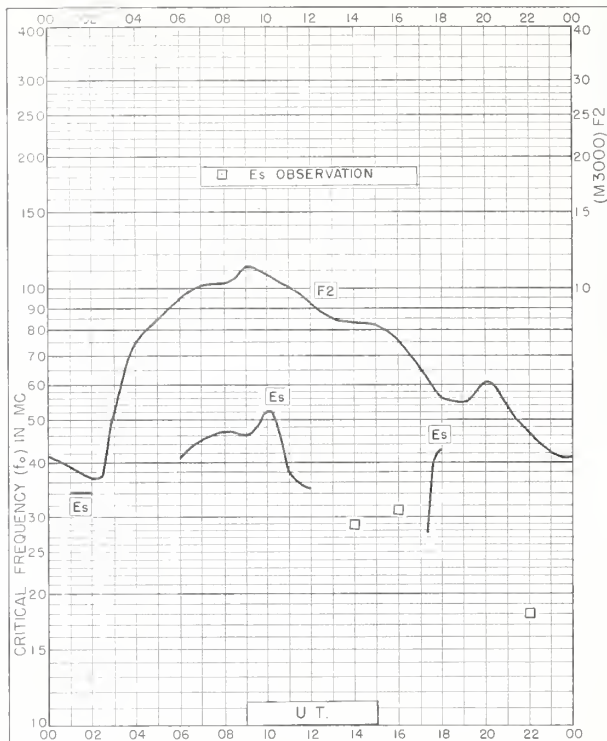


Fig. 78. MARION I.
46.8°S, 37.9°E FEBRUARY 1958

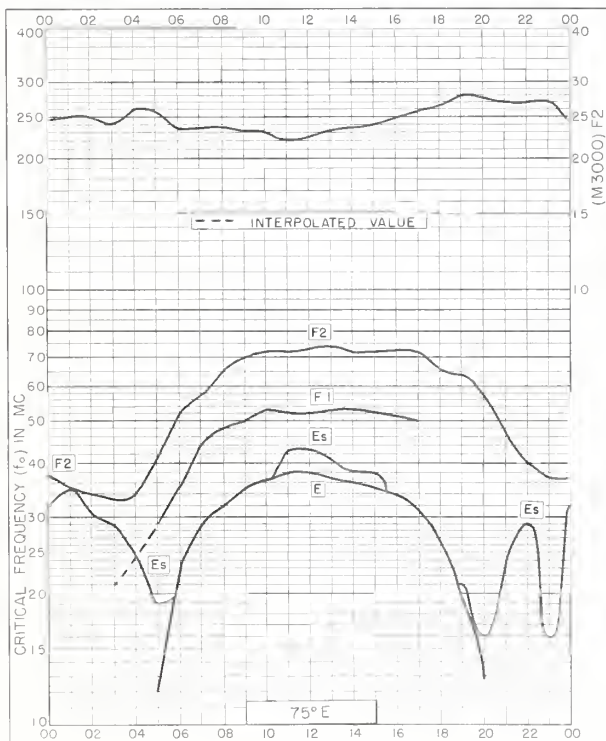


Fig. 79. KERGUELEN I.
49.4°S, 70.3°E FEBRUARY 1958

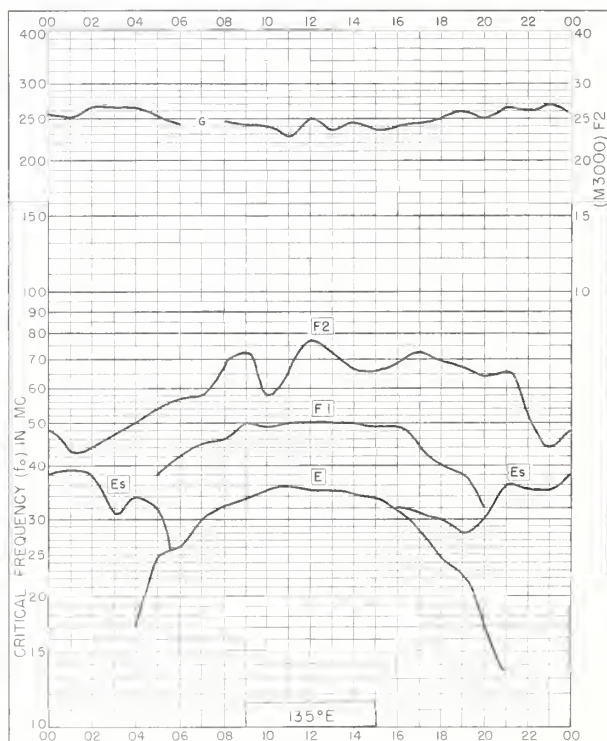


Fig. 80. TERRE ADELIE
66.7°S, 140.0°E FEBRUARY 1958

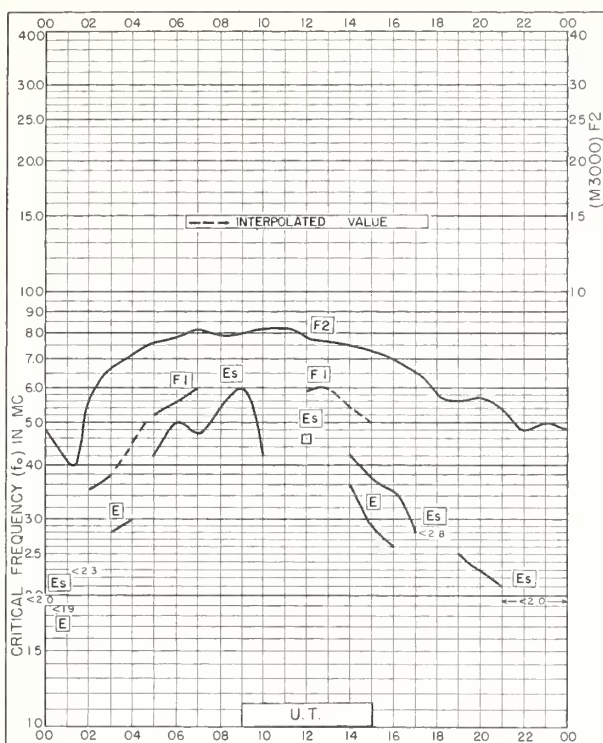


Fig. 81. MARION I.
46.8°S, 37.9°E

JANUARY 1958

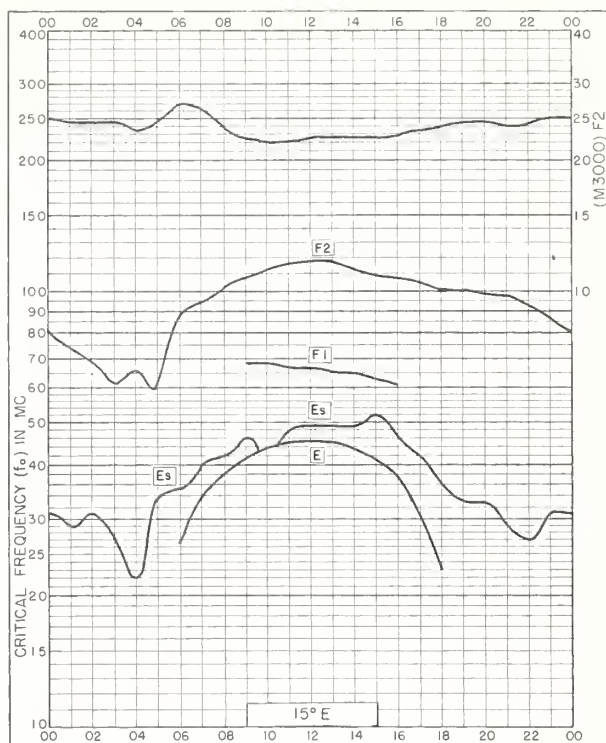


Fig. 82. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E

DECEMBER 1957

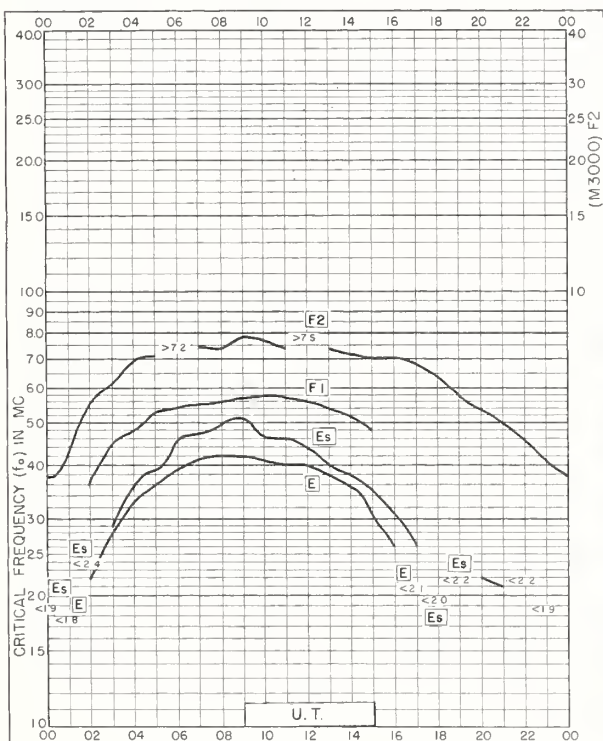


Fig. 83. MARION I.
46.8°S, 37.9°E

DECEMBER 1957



Fig. 84. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E

NOVEMBER 1957

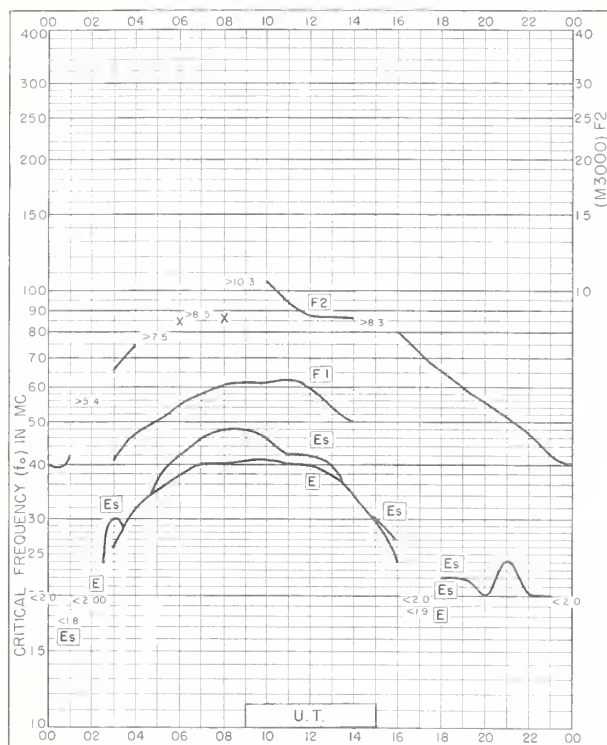


Fig. 85. MARION I.
46.8°S, 37.9°E NOVEMBER 1957

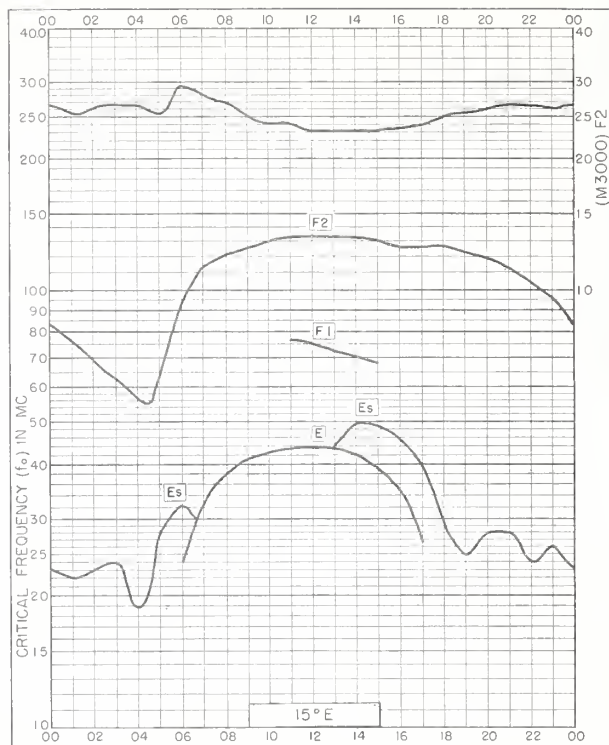


Fig. 86. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E OCTOBER 1957

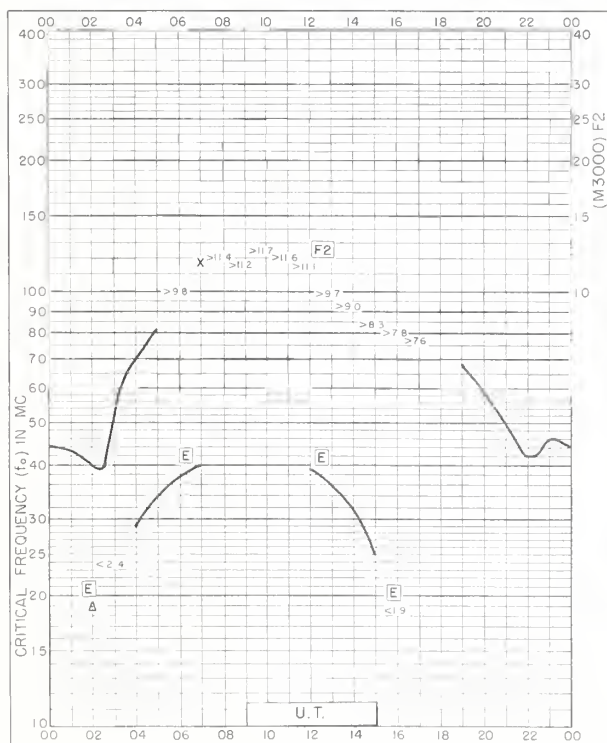


Fig. 87. MARION I.
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Fig. 88. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E AUGUST 1957

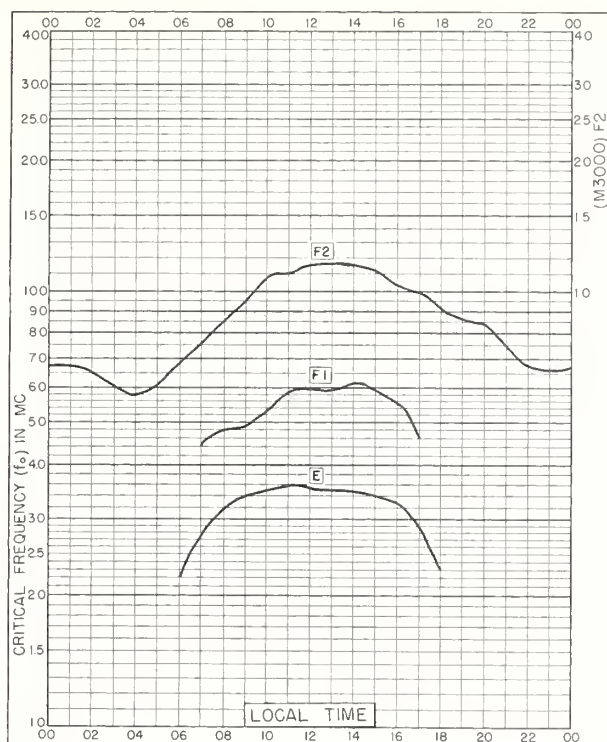


Fig. 89. BUDAPEST, HUNGARY
47.4°N, 19.2°E

APRIL 1957

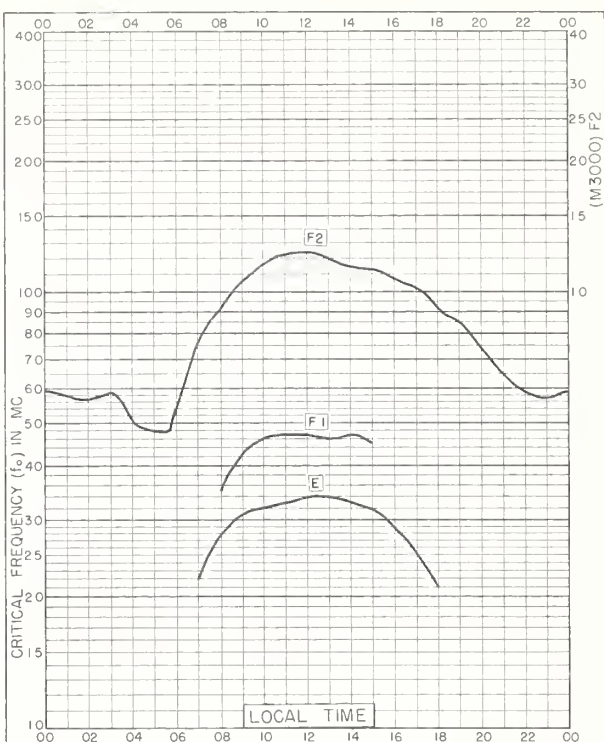


Fig. 90. BUDAPEST, HUNGARY
47.4°N, 19.2°E

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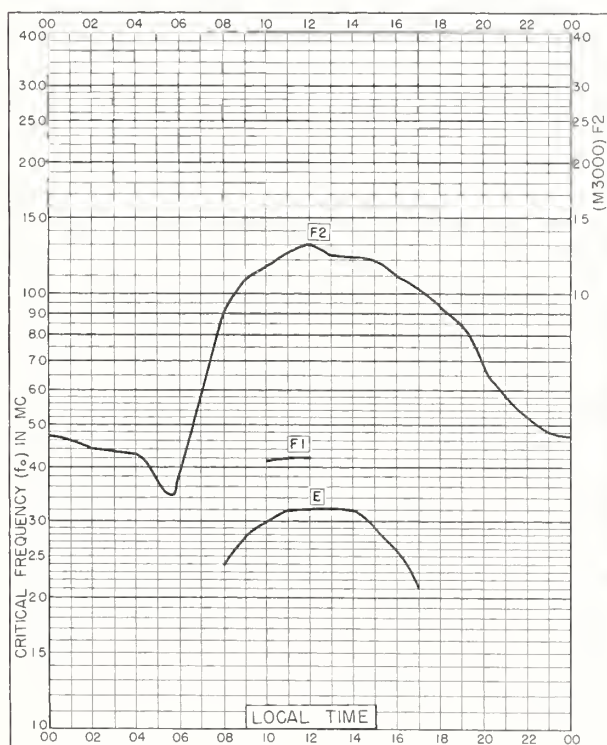


Fig. 91. BUDAPEST, HUNGARY
47.4°N, 19.2°E

FEBRUARY 1957

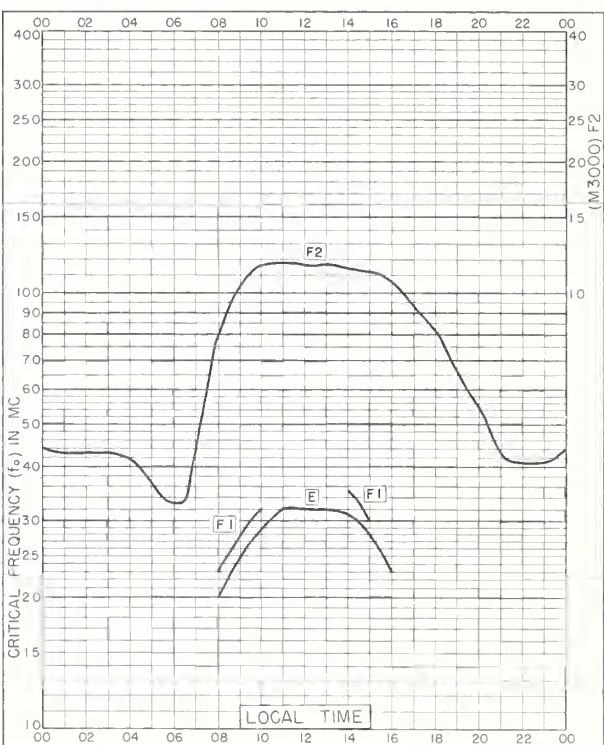


Fig. 92. BUDAPEST, HUNGARY
47.4°N, 19.2°E

JANUARY 1957

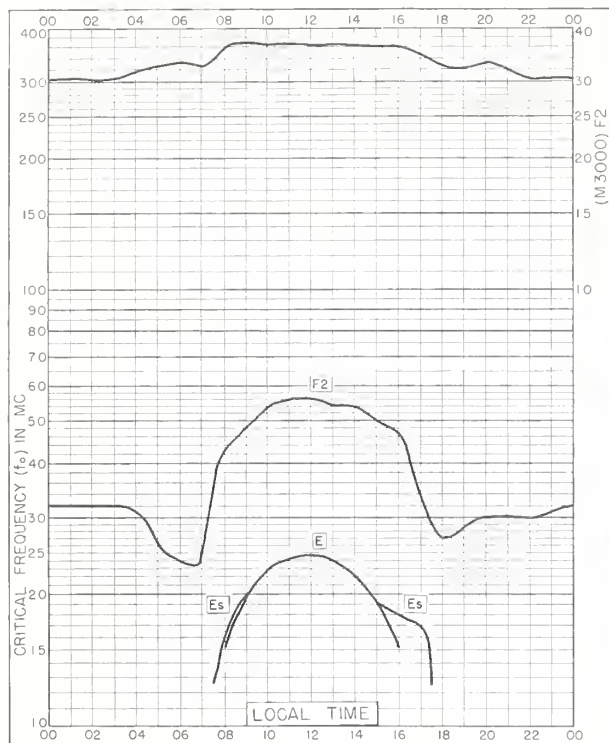


Fig. 93. FREIBURG, GERMANY
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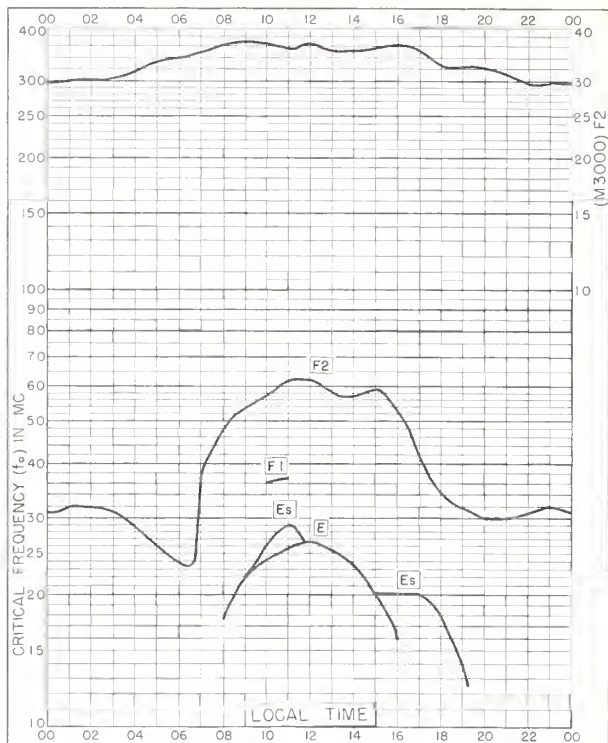


Fig. 94. FREIBURG, GERMANY
48.1°N, 7.8°E NOVEMBER 1954

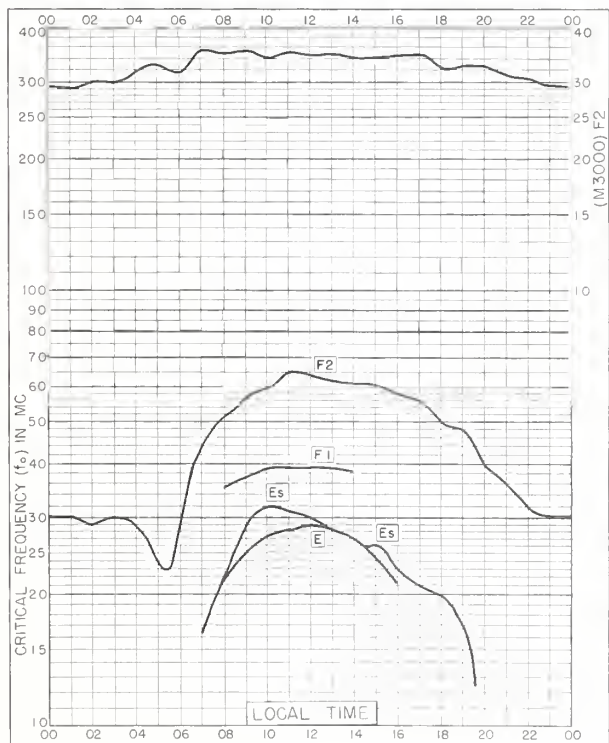


Fig. 95. FREIBURG, GERMANY
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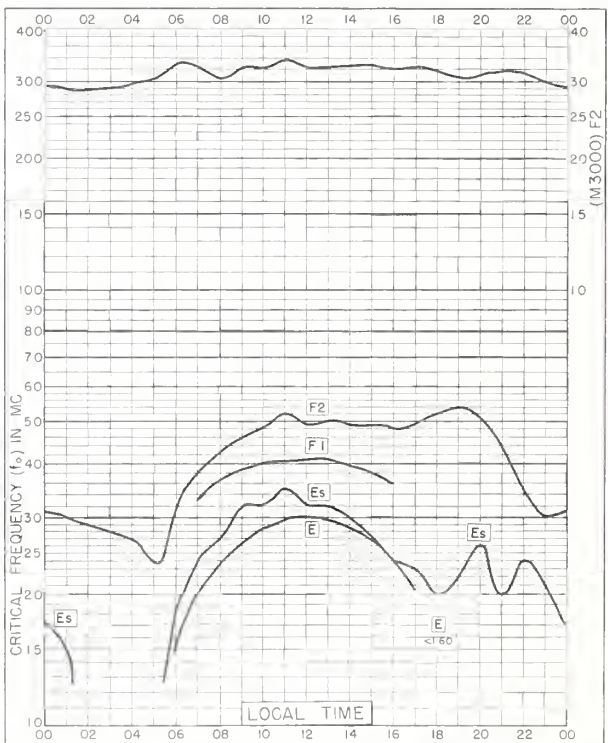


Fig. 96. FREIBURG, GERMANY
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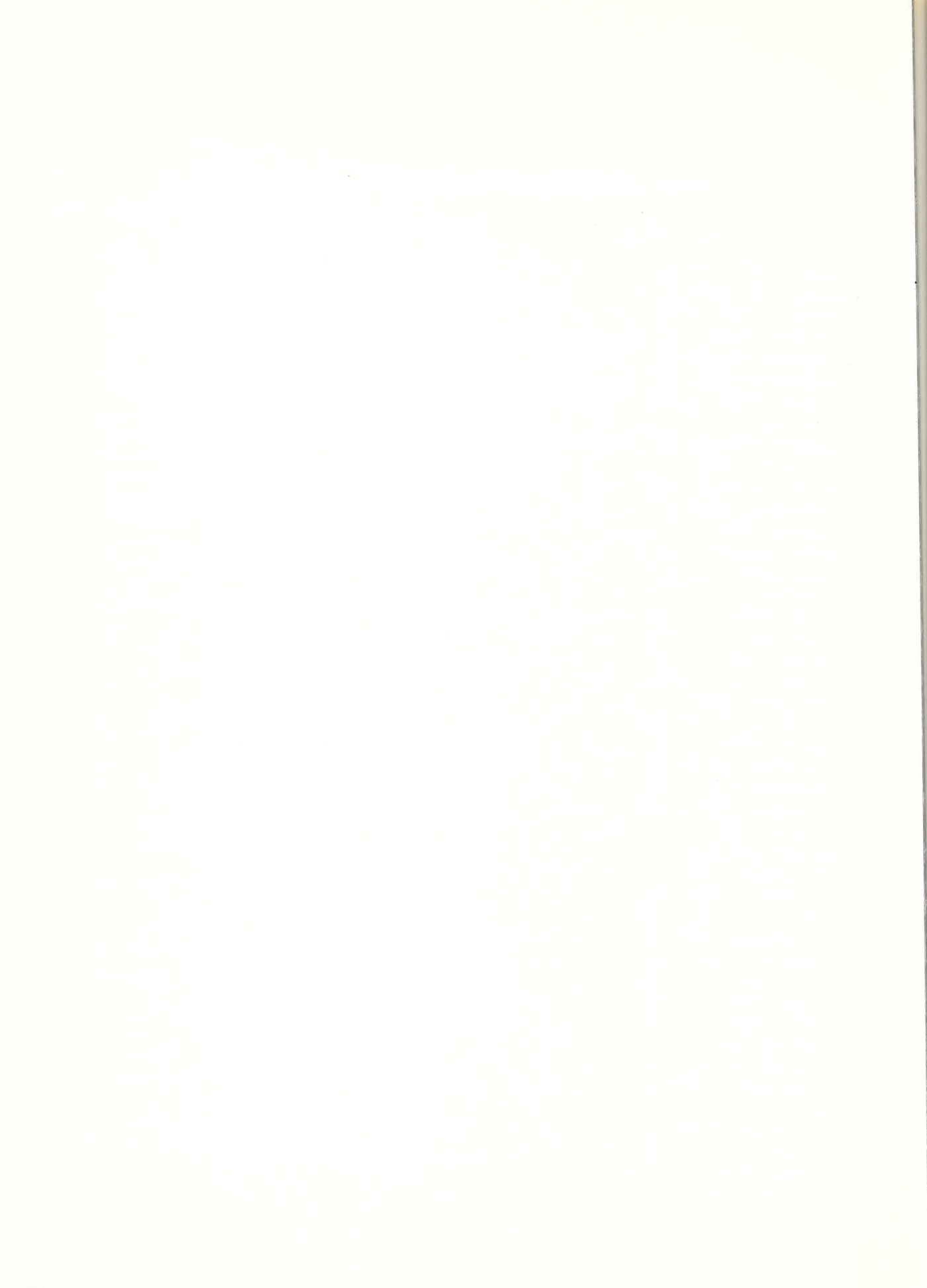
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(Part B). Solar-Geophysical Data.
Limited distribution. These publications are in general disseminated only to those individuals or scientific organizations which collaborate in the exchange of ionospheric, solar, geomagnetic, or other radio propagation data.

Catalog of Data:

A catalog of records and data on file at the U. S. IGY World Data Center A for Airglow and Ionosphere, Boulder Laboratories, National Bureau of Standards, which includes a fee schedule to cover the cost of supplying copies, is available upon request.

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Circulars of the National Bureau of Standards pertaining to Radio Sky Wave Transmission:

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